EDVR

Installation and Operation Guide

Version 1.0

Part Number 8200-0841-0100 A0

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Replace only with the same or equivalent type recommended by the battery manufacturer. Dispose of used batteries according to the battery manufacturer's instructions.

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Rack Mounting

Consult with the supplier of your equipment rack for adequate rack mounting means, with proper consideration for the weight of this product.

Consult with the manufacturer of your rack regarding the proper hardware and procedure of mounting this product in a safe and useable fashion

Avoid uneven loading or mechanical instability when rack-mounting units.

Make sure that units are installed to get enough air flow for safe operation.

The maximum temperature for rack-mounted units is 40° C.

Avoid uneven loading or mechanical instability when rack-mounting units.

Check product label for power supply requirements to assure that no overloading of supply circuits or overcurrent protection occurs.

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Note: This product was FCC verified under test conditions that included the use of shielded I/O cables and connectors between system components. To be in compliance with FCC regulations, the user must use shielded cables and connectors for all except power and alarm cables.

Note: Power Cord type: Detachable, approved power cord greater or equal to H03VV-F, 3G, 0.75mm^2 must be used.

Note: Disconnect the power supply by unplugging the power cord from the power outlet. Plug the cord into the power supply unit, making sure you drive in the plug points as deeply and closely as you can.

This digital apparatus does not exceed the Class A limits for radio noise emissions as set out in the Radio Interference Regulations (ICES-003) of the Canadian Department of Communications.

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Product Description

The American Dynamics EDVR is a triplex digital recorder with a 4, 9, or 16 channel multiplexer (depending on version of EDVR), capable of simultaneous recording, playback, and live multi-screen viewing.

The EDVR uses up to two hard disks and a CD-RW drive instead of VCR tapes to store video. The EDVR enables you to enjoy the extreme flexibility of digital image archiving instead of clumsy tape management. Equipped with a range of comprehensive features, such as playback picture-by-picture, quick access video recording by time and event, system software that can be upgraded, the expandable capacities of a hard drive, and much more, the EDVR will make your applications far more flexible and effective than ever before. For all purposes, the EDVR is going to prove a timely substitute for a time-lapse VCR.

This User Guide Describes the 4-, 9-, and 16-Channel EDVRs

The EDVR is available in three configurations based on the maximum number of camera connections: 4, 9, or 16 channels. Most of the content within this user guide is for all three versions. However, when an item is unique to the 4-, 9-, or 16-channel version; it will be labeled 4CH, 9CH, or 16CH, respectively.

Product Features

- Non-PC based DSP hardware with proprietary system firmware.
- Main recording media: one fixed hard disk drive (HDD) plus a CD-RW (a second HDD is optional).
- Full triplex operation with simultaneous Live, Play, Record, and remote Network operations.
- Pre-alarm image recording; 10 seconds prior to an event.
- Every camera can be assigned to any channel location under a multi-screen display mode in both live viewing and playback mode.

  4CH: 4-way, 3-way, 2-way

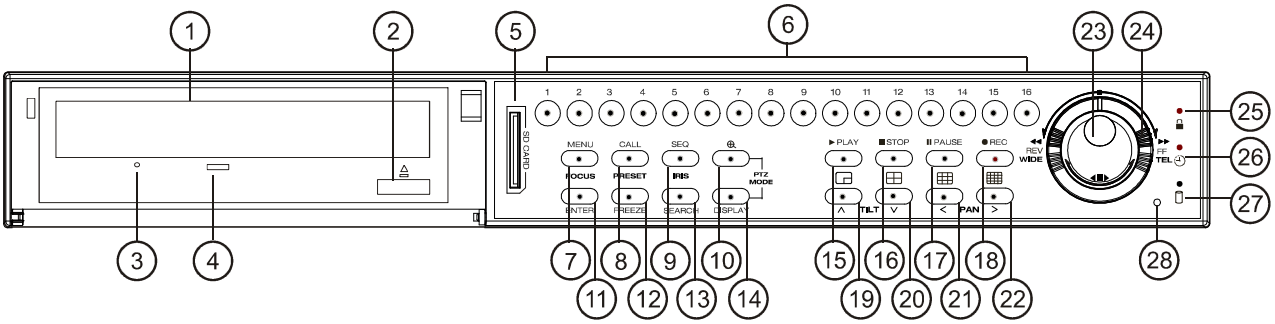
  9CH: 9-way, 8-way, 6-way, 4-way, 3-way, 2-way

  16CH: 16-way, 13-way, 10-way, 9-way, 8-way, 6-way, 4-way, 3-way, 2-way
- User selectable NTSC or PAL video output.
- Refresh rate up to 60 IPS for 720x240 (NTSC) or 50 IPS for 720x288 (PAL).
- Compression: Motion JPEG.
- Quick setup menu.
- Live viewing modes: freeze, 2x electronic zoom, custom sequencing.
- Recording and live status display of all the hard disks, CD-RW, and Secure Digital (SD) memory card.
- Four alternative recording image qualities per channel (best / high / standard / basic).
- Individual channel setups for alarm recording rates: normal, double, interleave, and exclusive.
- Multiple recording modes: Manual / Alarm / Schedule recording.
- Multiple search modes: Event list / Time / Alarm list / Filter / Thumbnail / SD card / CD-ROM.
- Search condition options: time/date, sensor alarm, video loss alarm, motion alarm, and channel specification.
- Thumbnail search display intervals: 8 different intervals (year / month / day / hour / 10 minutes / 1 minute / 10 seconds / 1 second).
- Fast and slow playback of recorded video at various speeds.

- Fast forward and reverse (2x, 4x, 8x, 16x, 30x, 100x).
- Slow forward and reverse (1/2x, 1/4x, 1/8x, 1/16x, 1/30x, 1/100x).
- Adjustable individual camera images (noise filter ON/OFF, brightness, contrast, color, and hue for each camera).
- Display position and color of title / time / date OSD text you can pick in both Main and Call monitors.
- Covert camera recording.
- Schedule setting: total 8 schedules.
- Individual record and alarm condition setting can be assigned by designated schedule.
- Disk-full warning and operation status LEDs.
- Remote control via RS-232 and RS-485 ports.
- Alarm trigger source selection: alarm sensor / motion detection / video loss alarm can be programmed to trigger three different alarm-out replays.
- Adjustable motion detection conditions: sensitivity, target area, target size, motion duration, and track direction.
- Individual alarm sensor, video loss alarm, and motion detection alarm for each channel.
- Power recovery on interruption.
- Operation-status record log.
- Multi-lock out functions: front key lock, RS-232 lock, play back lock, and recording lock.
- Three audio quality levels (8/ 22/ 44 kHz sampling, μ-law).
- Audio recording modes: stereo / left / right / off.
- Built-in Secure Digital (SD) memory card slot to save JPEG/AVI image(s) for an individual channel to an SD memory card.
- Easy field firmware update via SD memory card can be performed by the end user.
- Factory default menu setting and installer menu setting can be restored.
- Use both client software and Internet Explorer for remote viewing and access from a remote desktop or a laptop via Ethernet connection.
- Daylight saving setting.
- Pan / Tilt / Zoom camera setting and control through Ethernet port.

Descriptions of the Front and Rear Panels

Front Panel



General Operation

1. **CD-RW device compartment**

   The compartment allows you to burn the data mostly for backup purposes. This tray is for loading the disk, and will accept 120 mm and 80 mm disks. Place the disks in the exact center of the tray.

2. **Eject button**

   This button controls the insertion and ejection of the disk tray (that is, the caddy).

3. **Emergency Eject (recessed) button**

   When the power supply has been interrupted, or it is impossible to eject a disk, use a tool such as a straightened paper clip to press the emergency eject button (in its pinhole recess) so that the caddy will eject the disk.

4. **CD-RW busy indicator**

   After a disk has been inserted or if the disk is being accessed, the disk busy (access) light will blink.

5. **SD Card slot**

   Slot for a removable Secure Digital (SD) card. The SD card can be used for updating system software, archiving, and accessing critical images, and to save (back up) the complete EDVR settings.

6. **Channel buttons**

   Individual channel buttons numbered 1 to 16 (or 1 to 4, or 1 to 9, depending on EDVR version). Press the button below the number to display that channel in the live and play modes.

7. **MENU button**

   Press to enter the Main setup menu.

8. **CALL button**

   If you connect a call monitor to the EDVR, the CALL button enables you to select channels on this monitor. Press the CALL button and select a channel button on the front panel simultaneously to display that channel. (**Note**: See back panel connections for connection information for the call monitor.)

9. **SEQ button**

   Press to enter the sequential display mode. This mode displays a multi-screen sequence for the main monitor, and one sequence for the call monitor. The display will sequentially switch to the channels you configured from the Sequence Settings menu (selected from the Main menu). The dwell time for each camera (channel) can also be configured (see page 44).

10. **Zoom button**

    (Magnifying glass with "+" sign icon). Press to double the size of an image. To shift your zoom focus, use the Left and Right, and Up and Down buttons ("⮜", and "⮞", "⮝", and "⮟", respectively). Press the Zoom button again to return to the original image size.

11. **ENTER button**

    Press to enter a selected item and save any new settings in the menu setup mode.

12. **FREEZE button**

    Press to freeze an image in the live mode or play recorded video mode.

    Note: During the play mode, pressing either the FREEZE or the PAUSE button has a different effect: press the FREEZE button to capture a particular image while the image record continues running. Press the PAUSE button to halt both the particular image and the image recording process. (See also PAUSE button description.)

13. **SEARCH button**

    Press to search recorded video. Pressing the SEARCH button displays the Search menu on the main monitor. Select your search criteria from this menu.

14. **DISPLAY button**

    Press to display the status of a hard disk(s) or the SD card (if an SD card is inserted).

15. **▶ PLAY button**

    Press to play back a recorded video from a hard disk.

16. **■ STOP button**

    Press to stop playing back a recorded video from a hard disk.

17. **II PAUSE button**

    - During recorded video: Press to stop the motion on the display. While the motion has been paused, press the PAUSE button again to display one frame of a picture at a time in the forward direction. Additionally, if you press ENTER during the paused video, you can access the SD Card Menu so that you can save the image(s). (See also FREEZE button description.)
    - During live video: Press the PAUSE button to halt both the selected image and the image recording process. (See also FREEZE button description.)

18. **● REC button**

    Push to start recording video onto a hard disk while in the live display mode. Press again for at least 3 seconds to stop the recording. An amber indicator shows that recording is turned on.

19. **Up button** ("⮝")

    While in the setup menu mode, press to highlight the desired item.

    In the live and play modes, press the Left ("⮜") button to enter a single channel, with an inset of the next channel with passes through three modes with successive button pushes.

20. **Down button** ("⮟")

    While in the setup menu mode, press to highlight the desired item.

    In the live and play modes, you can press this button three times successively to get three multi-channel modes on the main monitor, the first two times in a 3-way view, and the last in a 4-way mode.

21. **Left button** ("⮜")

    While in the setup menu mode, press to highlight the desired item.

    In the live and play modes, press the Left button to enter a single channel, with an inset of the next channel which passes through three modes with successive button pushes.

22. **Right button** (“➤”)

    While in the setup menu mode, press to highlight the desired item.

    In both the live and play modes, press this button three times successively to get three multi-channel modes on the main monitor, the first two times in a 3-way view, and the last in a 4-way mode.

23. **Jog Dial**

    The jog dial can be turned clockwise or counterclockwise, as well as step-by-step. Turn the jog dial counterclockwise (to the left) to play a recorded video in the reverse direction. Turn it clockwise (to the right) to play a recorded video in the forward direction. Moreover, the dial can be rotated so you can move the focus to any display item or function.

24. **Shuttle Ring**

    The shuttle ring can be turned clockwise or counterclockwise so that the playback is displayed in either a forward or backward direction. Turn the shuttle ring counterclockwise (to the left) to play a recorded video in the reverse direction at faster or slower speeds than the recorded speed. Turn it clockwise (to the right) to play a recorded video in the forward direction at faster or slower speeds than the recorded speed. Additionally, the shuttle ring can also be rotated to change or adjust values in your settings.

    Note: The monitor will display the message **Stop Record** if you turn off the device while recording.

25. **Lock Indicator**

    Denotes an operation lock. The amber indicator is illuminated during a lock condition.

26. **Timed Recording Indicator (clock icon)**

    When illuminated, indicates that a scheduled record setting is on (“clock” icon = timer record).

27. **Disk Indicator**

    Indicates the status of the unit’s hard disk drives. The green light indicates a hard disk drive is storing or retrieving data. The red light signals that a hard disk drive is filling up. The orange light indicates the hard disk is retrieving at disk-full status.

28. **Power / Reboot button**

    Press this recessed button (using a tool such as the point of a ballpoint pen) quickly (briefly) to turn the EDVR power on or off. Press this button for at least 3 seconds to restart the EDVR (such as when updating the system files. See the appendix “System Software Update,” page 103).

PTZ Operation

To enter PTZ mode, press the ZOOM button (magnifying glass icon) and DISPLAY button simultaneously.

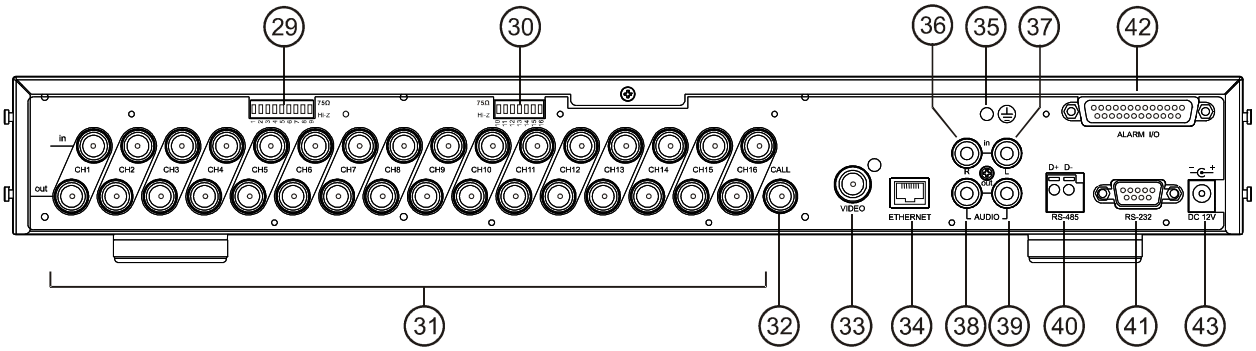
Using this mode, you can use the EDVR front panel buttons to control the dome cameras.

Note

Item numbers refer to the labels on the illustration on page 3.)

Function	Button or Control Name	Item Number (see figure, page 3)
Select Camera	**4CH: Cameras 1– 4** **9CH: Cameras 1– 9** **16CH: Cameras 1–16**	6
Focus nearer	**MENU**	7
Focus more distant	**ENTER**	11
Iris – Press for iris open	**SEQ**	9
Iris – Press for iris close	**SEARCH**	13
Tilt camera up	**Up button** (“▲”)	19
Tilt camera down	**Down button** (“▼”)	20
Pan left	**Left button** (“◄”)	21
Pan right	**Right button** (“►”)	22
Optical zoom (wide/telephoto)	**Shuttle Ring**	24
Digital zoom	**ZOOM button**	10
Set preset values	**FREEZE button**	12
Select preset values	**CALL button**	8
Press to display PTZ hint	**DISPLAY button**	14

Rear Panel



Note

For items 29, 30, 31, and 42. As are appropriate for your version of EDVR (that is, 4CH, 9CH, or 16CH), you will have 4, 9, or 16 Video in connectors, Video loop through connectors, termination switches, and Alarm I/O connections.

29. & 30. **75Ω/Hi-Z individual termination**

These switches (4, 9, or 16, depending upon EDVR version) are used to set the impedance of each loop through output connector (31) between the values 75Ω and Hi-Z.

Toggle the corresponding impedance termination to the Hi-Z position if another device is connected to the video loop through that connector. Set the impedance to the 75Ω position if no other device is connected to the corresponding loop through the connector. The default setting is 75Ω.

31. **Video in connectors** (Ch1–Ch16) & **Video loop through connectors** (Ch1–Ch16)

Video in: These BNC connectors (4, 9, or 16, depending upon EDVR version) are used to connect to the video output from the cameras.

Video loop through: These BNC connectors (4, 9, or 16, depending upon EDVR version) are used to loop video signals from each camera's video out connector to other devices.

32. **Call monitor connector**

This BNC connector provides video signals to the call monitor to display any selected camera in full-screen call up, sequential display, and alarm call up operations.

33. **Main monitor connector**

This BNC connector provides a video signal to the main monitor that is controlled by the front panel control buttons. This connector transmits the video display in full-screen format, multi-screen format, and sequential format.

34. **Ethernet 10/100 connector**

A standard RJ-45 connector for 10/100 Mbps Ethernet networks.

35. **Ground Screw**

The ground screw is for the chassis terminal.

36. & 37. **Left and Right Audio In connectors**

These two connectors are used to connect the audio output from a camera or another device to the EDVR.

38. & 39. **Left and Right Audio Out connectors**

These two connectors provide the unit's audio signal to a speaker or stereo.

40. **RS-485 port**

    The RS-485 communication ports function as connectors when two or more units are serially connected to an external control device.

41. **RS-232 port**

    The RS-232 communication port functions as a connector to an external control device. Refer to the RS-232 & RS-485 protocols for more details.

42. **Alarm I/O**

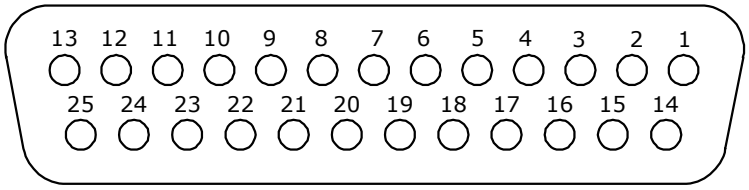
    This is a 25-PIN D-SUB connector including the Alarm In (4, 9, or 16 connections, depending on EDVR version), Ground, 3-Pin Alarm Out, Disk Full, Record In, Alarm Reset, and Reserved items for connecting with external devices. A quick-connect adapter for Alarm I/O connections is included with the EDVR. Refer to the next section, Alarm In/Out, for details.

43. **Plug Inlet DC Jack**

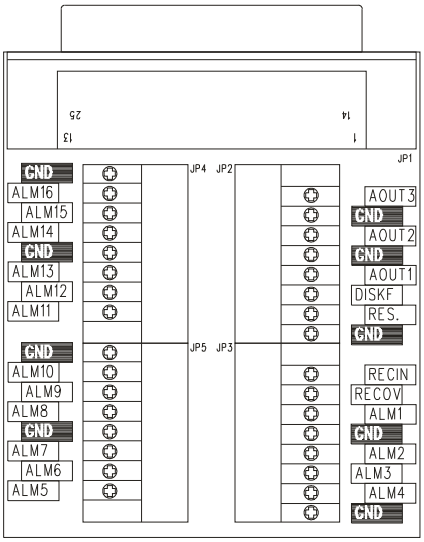
    The inlet connects to the external power supply. Connect with the 12 V DC TUV-approved Power Supply; or connect with the UL Listed Class 2 Power Supply or ITE power supply marked 'LPS' or its equivalent.

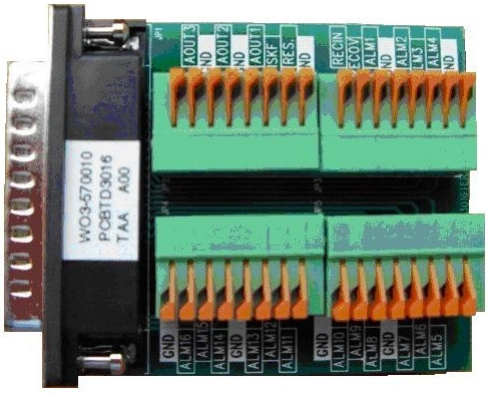
Alarm In/Out

The pin assignment of the female DB-25 alarm I/O connector is listed as follows. Note that the first figure shows the rear view.



A quick-connect adapter that plugs into the Alarm I/O DB-25 connector is included with the EDVR.





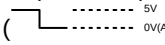
From the following, refer to the appropriate Alarm I/O connection table for your version of EDVR (4-, 9-, or 16-channel).

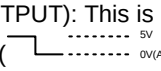
4-Channel EDVR Alarm I/O Connections (also see notes after tables)			
Pin#	**Pin Assignment**	**Pin#**	**Pin Assignment**
1	GROUND	14	RESERVED
2	DISK FULL (OUTPUT)	15	ALARM1 OUT (OUTPUT)
3	ALARM2 OUT (OUTPUT)	16	ALARM3 OUT (OUTPUT)
4	RECORD IN (INPUT)	17	ALARM RESET (INPUT)
5	ALARM1 IN (INPUT)	18	ALARM2 IN (INPUT)
6	ALARM3 IN (INPUT)	19	ALARM4IN (INPUT)
7	No connection	20	No connection
8	No connection	21	No connection
9	No connection	22	No connection
10	No connection	23	No connection
11	No connection	24	No connection
12	No connection	25	No connection
13	No connection		

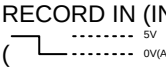
9-Channel EDVR Alarm I/O Connections (also see notes after tables)			
Pin#	**Pin Assignment**	**Pin#**	**Pin Assignment**
1	GROUND	14	RESERVED
2	DISK FULL (OUTPUT)	15	ALARM1 OUT (OUTPUT)
3	ALARM2 OUT (OUTPUT)	16	ALARM3 OUT (OUTPUT)
4	RECORD IN (INPUT)	17	ALARM RESET (INPUT)
5	ALARM1 IN (INPUT)	18	ALARM2 IN (INPUT)
6	ALARM3 IN (INPUT)	19	ALARM4IN (INPUT)
7	ALARM5 IN (INPUT)	20	ALARM6 IN (INPUT)
8	ALARM7 IN (INPUT)	21	ALARM8 IN (INPUT)
9	ALARM9 IN (INPUT)	22	No connection
10	No connection	23	No connection
11	No connection	24	No connection
12	No connection	25	No connection
13	No connection		

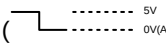
16-Channel EDVR Alarm I/O Connections (also see notes after tables)			
Pin#	**Pin Assignment**	**Pin#**	**Pin Assignment**
1	GROUND	14	RESERVED
2	DISK FULL (OUTPUT)	15	ALARM1 OUT (OUTPUT)
3	ALARM2 OUT (OUTPUT)	16	ALARM3 OUT (OUTPUT)
4	RECORD IN (INPUT)	17	ALARM RESET (INPUT)
5	ALARM1 IN (INPUT)	18	ALARM2 IN (INPUT)
6	ALARM3 IN (INPUT)	19	ALARM4IN (INPUT)
7	ALARM5 IN (INPUT)	20	ALARM6 IN (INPUT)
8	ALARM7 IN (INPUT)	21	ALARM8 IN (INPUT)
9	ALARM9 IN (INPUT)	22	ALARM10 IN (INPUT)
10	ALARM11 IN (INPUT)	23	ALARM12 IN (INPUT)
11	ALARM13 IN (INPUT)	24	ALARM14 IN (INPUT)
12	ALARM15 IN (INPUT)	25	ALARM16 IN (INPUT)
13	No connection		

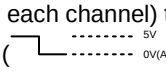
Notes

- GROUND: Ground Contact.
- DISK FULL (OUTPUT): This is a disk full output trigger. Connect to external devices such as buzzers or lights. ()

- ALARM OUT (OUTPUT): This is an alarm output trigger. Connect to external devices such as buzzers or lights. ()

- RECORD IN (INPUT): This pin connects to a record trigger device for starting a record. ()

- ALARM RESET (INPUT): This pin connects to an alarm-clear device for clearing an alarm. ()

- ALARM IN (INPUT): This is an alarm input (for each channel) that can be programmed in the menu system to Normally Open or Normally Closed. ()

Attaching an External Device to an EDVR

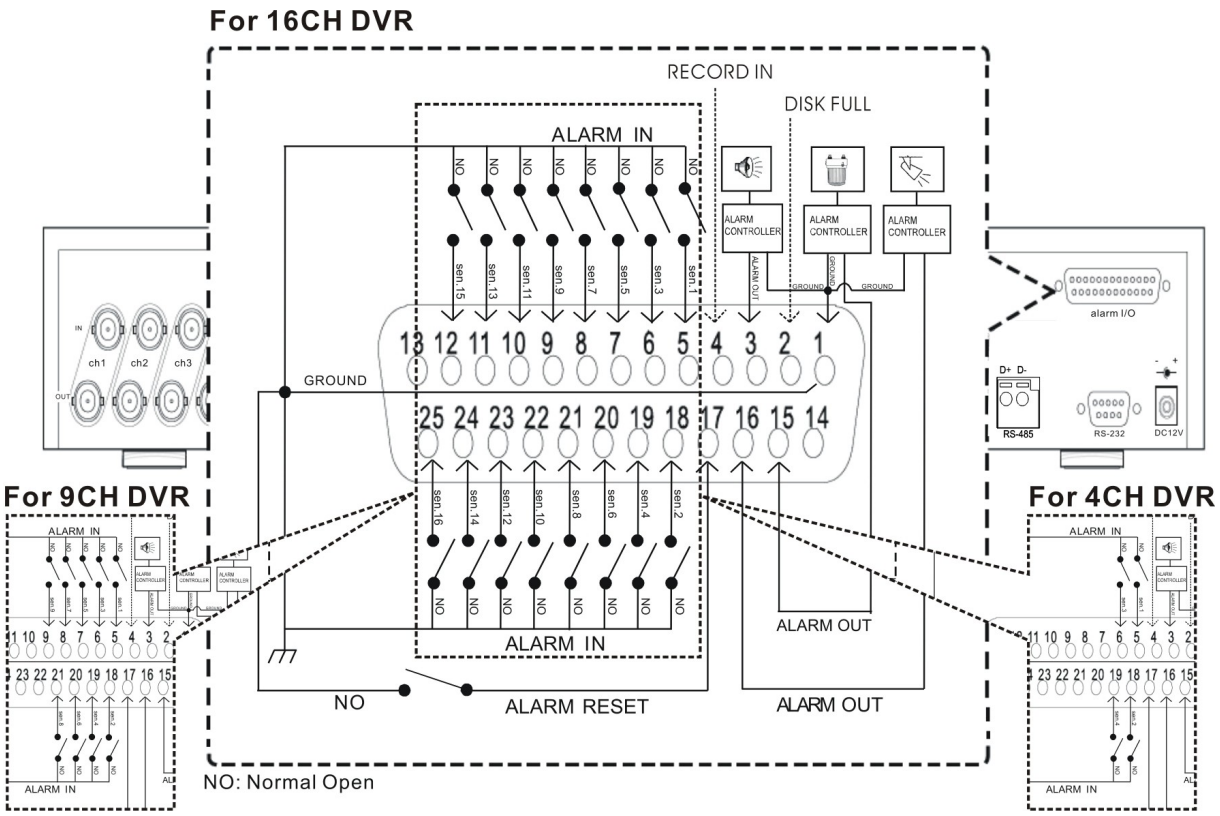
The EDVR provides facilities to report 3 auxiliary alarm outputs for associated equipment − such as the spotlight, buzzer, or blinker alarm − and 16 alarm inputs for the 16CH EDVR version (9 for the 9CH; 4 for the 4CH).

The alarm outputs are related to the alarm indication.

The input alarms are reported to the management system and are activated by a closed or open loop condition.

Connect an alarm out, alarm input, and a peripheral device as shown in the following diagram.

- **Alarm Input:** An input connection to the EDVR that triggers the EDVR unit to active (buzzer and message display) if one of the alarm input links (the sensor of each channel) is activated (that is, turned ON).
- **Alarm Output:** An output connection to the warning devices that triggers the warning unit to turn on an alarm with sound or light. When combining a warning device to the EDVR, connect the Pin#1 GROUND and the Pin#3/15/16 ALARM OUTPUT.


For 16CH DVR
RECORD IN
DISK FULL
ALARM IN
ALARM CONTROLLER
ALARM CONTROLLER
ALARM CONTROLLER
ALARM OUT
GROUND
GROUND
GROUND
alarm I/O
D+ D-
RS-485
RS-232
DC12V
IN
OUT
ch1
ch2
ch3
13 12 11 10 9 8 7 6 5 4 3 2 1
25 24 23 22 21 20 19 18 17 16 15 14
sen.15
sen.13
sen.11
sen.9
sen.7
sen.5
sen.3
sen.1
sen.16
sen.14
sen.12
sen.10
sen.8
sen.6
sen.4
sen.2
NO
GROUND
ALARM IN
ALARM OUT
NO
ALARM RESET
ALARM OUT
NO: Normal Open
For 9CH DVR
ALARM IN
11 10 9 8 7 6 5 4 3 2
23 22 21 20 19 18 17 16 15
ALARM IN
For 4CH DVR
ALARM IN
11 10 9 8 7 6 5 4 3 2
23 22 21 20 19 18 17 16 15
ALARM IN

Installation

This section provides instructions to set up the system, and is an expanded version of the information provided in the printed copy of the Quick Setup Guide (that is included in the shipping box with the EDVR).

EDVR Unit and Components

In addition to the American Dynamics EDVR (shown in the following illustration), the components listed in the following are also included.

External Power Supply

"power brick"

Two power cords

EDVR external power supply to utility power outlet

a) North America

b) Continental Europe

CD-ROM and Printed Quick Setup Guide

CD-ROM includes EDVR Client software (with image editing application) and electronic versions of user documentation

Alarm I/O adapter quick connect block

Rack Mount Kit

Required Items

In addition to the EDVR and the components provided with it, you also need to provide the following:

- A composite monitor (NTSC or PAL, as appropriate for your system)
- Cameras and BNC Cables

You may also want to include optional items such as a Call Monitor and the American Dynamics Touch Tracker (ADTT16E) to expand your system.

Connecting Devices to the Rear Panel

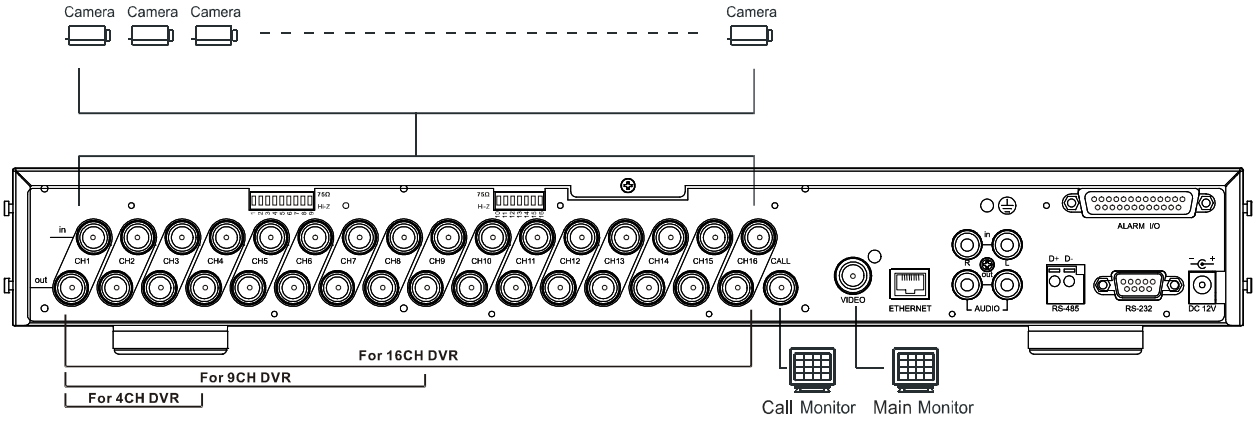
Note

After you make all of the other connections, you will be instructed to connect the power cord.

1. Remove all items from the shipping carton. If any item is missing or broken, please inform your American Dynamics Account Manager immediately.
2. Save all cartons and packing materials that came with the EDVR. Use these materials for shipping or transporting the EDVR.
3. Connect the main monitor to the Main Monitor BNC connector.
4. Connect one or more cameras to the Camera In BNC connector(s). Depending on the version of the EDVR, you can connect from 1 to 16 cameras (16CH version: 16 cameras; 9CH: 9 cameras; 4CH: 4 cameras).

Note

For loop through, Touch Tracker (ADTT16E), and other devices and connections, refer to the documentation that is provided with that device. In addition, refer to the appendix, “Connecting a Touch Tracker ADTT16E”, page 106.



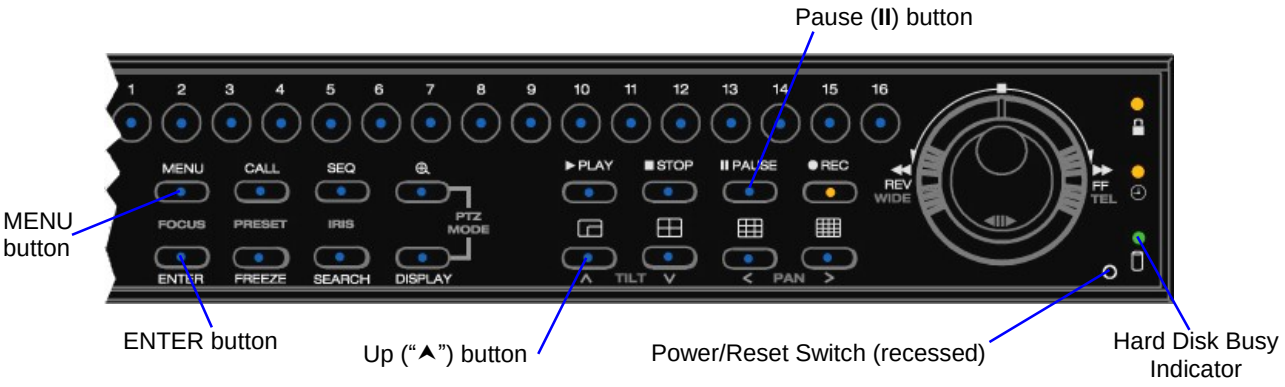
Power Up and Test

1. Attach the appropriate power cord to the external power supply ("power brick") and connect to a power source. Apply power to the EDVR and to the connected video monitor(s) and camera(s).

Note

When connected to a power source, the EDVR powers up automatically.

2. If the EDVR does not power up automatically, insert a tool such as the point of a ballpoint pen into the Front Panel power/reset hole (near the lower right corner), and gently press the reset switch. The unit will start.



3. Set the Date and Time from the Quick Settings Menu:

- Press the MENU button, select Quick Settings, and press the ENTER button.
- Use the navigation buttons (left, right, up, & down) to select and set an item.
- Refer to page 39 for detailed instructions.

Note

To access the EDVR configuration settings, press the MENU button. Then select a menu and use the navigation buttons to go to the appropriate item(s).

Language Selection

While in the Main Menu press the CALL button. Use the left or right arrow button to change languages.

(Optional) Select Video Output: NTSC or PAL

From the factory, the EDVR is configured for NTSC video output. However, if you need to change video output to PAL, or change PAL to NTSC, complete the following steps.

1. If the EDVR and the Main Monitor are not turned on, turn them on.
2. On the EDVR Front Panel, simultaneously press the Up ("⮝") and Pause (**II**) buttons for at least 3 seconds. After you hear a long beep, release both buttons.
3. The camera images are replaced by the following text. (**Note**: You will see the name of the video mode you are switching to, either PAL or NTSC. You will not see both terms.)

   Set to PAL (or NTSC). . . . OK

   Please Press Any Button to Restart.

The video mode has now been switched (from PAL to NTSC or from NTSC to PAL, as selected by you).

4. Press any Front Panel button to restart the EDVR. Once the EDVR has restarted, it will be in the video output mode you selected.
5. After you restart the EDVR, if it does not start recording press the REC button to begin this process. (The default record settings: high quality with 30 IPS for NTSC and 25 IPS for PAL. **Note**: F/S (fields per second) and IPS (images per second) are used interchangeably for images per second, as images are not interlaced.)

Notes

- To change the video output back to NTSC (or PAL), repeat the preceding process.
- If you have color cameras and a color monitor but you only see black and white video images, it is likely that you have selected the incorrect video output for your equipment configuration (that is, you selected PAL for a NTSC system or NTSC for a PAL system).

Results

When you connect and apply power to the EDVR, the default setting is Record On.

The EDVR should be recording live video and displaying information on the monitor. The hard disk (HDD) activity LED on the front panel should be illuminated (blinking). Is the EDVR functioning as described?

Yes

Shut down the unit and continue to install alarms and other accessories, as needed. Refer to other sections in this guide, as appropriate for your configuration.

No

If your EDVR did not power up, reset it using the power/reset switch as described in the section “Power Up and Test,” page 14.

If your EDVR powered up, shut it down by inserting a tool (for example, the point of a ballpoint pen) into the power/rest hole on the front panel, push gently and hold momentarily. Look at the main monitor to see if the unit restarts. If there are no indications on the monitor, insert the tool into the power/reset hole again and press quickly to shut down the unit. Then check the following:

Connections	Cables, cords, and other connectors
Termination settings	Monitor(s)
Cameras	

Power up the unit. If you have checked all of these items and the unit fails to power up, or if you restarted your unit and the unit still fails to operate properly, please contact American Dynamics Technical Support.

(Optional) Install EDVR Client Software

To set up the software to remotely view and manage one or more EDVRs from a personal computer, install the included EDVR Client software. Installation of the software is described in the section, “EDVR Client Software,” page 72.

Notes

- The EDVR Client software also includes an application for viewing and managing image files (both in still and movie format).
- To use the EDVR Client software, the EDVR and all PCs accessing the EDVR must have network connectivity (LAN access if auto detection is required).
- In addition to the EDVR Client software, you can use a Web browser such as Microsoft Internet Explorer, to remotely view and manage one or more EDVRs. Refer to the section, “Using a Web Browser,” page 95.

Hard Disk Drives

Hard Disk Drive Installation

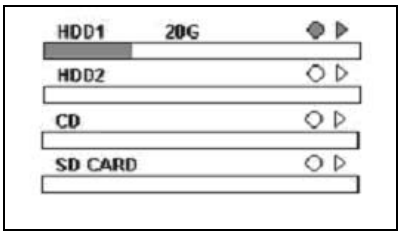
The EDVR comes equipped with one or two hard disk drive and a CD-RW drive. It also includes a second internal drive bay so that a second hard disk drive can be added. To install a second hard disk drive in your EDVR or to replace the existing hard disk drive, contact American Dynamics Technical Support for further information.

HDD Information and Channel Selection

HDD Information

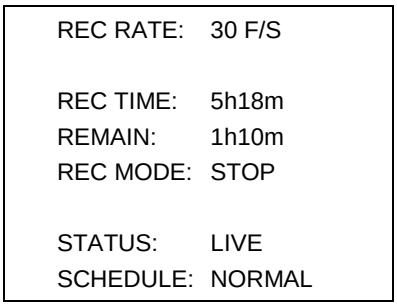
You can display the HDD information as shown in the following figures at any time by pressing the **Display** button (see page 4, item 14).

In playback mode, the recorded video information is displayed. In live or recording mode, the Manual Recording information is displayed. The EDVR displays system status on the main monitor as shown in the following. The second and third screens are accessed by pressing the **Display** button a second and third time.



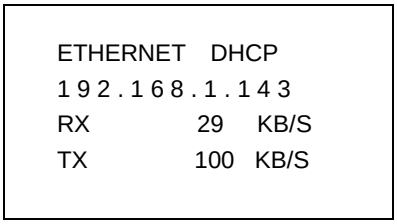
(20G): The capacity of an installed hard disk: 20 GB
(HDD*n*): Hard disk drive compartment (n = 1 or 2)
(●): Recording; (○): No recording
(▶): Playback; (▷): No Playback
(CD):CD-RW Compartment
(SD CARD): Secure Digital (SD) Card Compartment

Figure 1 – Display HDD information, First Screen



(30 F/S): Record speed setting: 30 fields per sec, same as IPS as images are not interlaced.
(5h18m): Total 5 hours and 18 minutes recording time available.
(1h10m): Total 1 hours and 10 minutes remaining time available.
(REC MODE): STOP; MANUAL.
(STATUS): Indicates the device status.
PLAY: The device is in the playback mode.
LIVE: The device is in the live display mode.
MANU: The device is in the search mode.
(SCHEDULE): NORMAL, and 1 through 8.

Figure 2 – Display HDD information, Second Screen



(DHCP): Enables the DHCP communication function.
(192.168.1.143): Every EDVR must have a unique IP address to be identified on the network.
(RX 29 KB/S): Receives the data from the network every second.
(TX 100 KB/S): Transmits the data to the network every second.

Figure 3 – Display HDD information, Third Screen

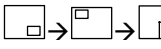
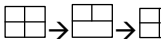
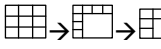
Channel Selection

The multi-screen function buttons and the CAM1/ CAM2/ CAM3/ …/CAM16 (or through /CAM4 or /CAM9, depending on EDVR version) buttons are used to select video modes and video channels. The following tables show the functions under different modes for each of the three versions of EDVR (4CH, 9CH, or 16CH).

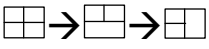
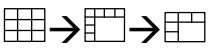
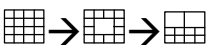
4CH EDVR

Mode	Key	Result Display
Live / Record / Playback		
	CH1 / CH2 / CH3 / CH4	(Single channel)

9CH EDVR

Mode	Key	Result Display
Live / Record / Playback		 then loop back
		 then loop back
		 then loop back
	CH1 / CH2 / CH3 / …/ CH9	(Single channel)

16CH EDVR

Mode	Key	Result Display
Live / Record / Playback		then loop back
		 then loop back
		 then loop back
		 then loop back
	CH1 / CH2 / CH3 / …/ CH4 /9/16	(Single channel)

Updating System Software

If the system software (firmware) of the EDVR needs to be upgraded, refer to the appendix, “System Software Updates,” page 103, for instructions.

Basic Operations

This section describes how to operate and manage the EDVR.

To enter and navigate the EDVR configuration menus, use the MENU, ENTER, and Up and Down buttons. You can also use the jog dial and the shuttle ring for menu item navigation and selection. Refer to the section, “Description of the Front and Rear Panels,” page 3, for further information about the EDVR front panel controls.

Recording Operations

This section details the way to record video onto hard disk drives. Before commencing recording, configure the recording settings properly according to your needs.

Manual Recording

When the EDVR is in live display mode, complete the following steps to start recording:

1. In live display, press the REC (record) button to record video onto a hard disk drive with the corresponding programmed recording settings. The device will immediately emit a beeping sound and the REC (record) button will light up, indicating the EDVR is in recording mode. The Hard Disk Busy indicator light will also be illuminated (blinking), indicating recording is taking place.
2. Press and hold the REC (record) button for at least 3 seconds to stop recording at any time.
3. To access previously recorded video only, refer to section “Playback Operations” (page 23) for more details.

Timer Recording

Timer recording provides options to set up to eight periods of time each day in a weekly table to program the EDVR to turn on and off at specified times. Complete the following steps to set up a program of scheduled recording.

1. Press the MENU button to enter the Main Menu.
2. Select Advanced Settings and press the ENTER button to enter the Advanced Settings page.
3. Select one of the eight "Schedules" and use the shuttle to choose "Enable" to activate it or "Disable" to deactivate it. If you choose "Enable", then select "Enter" and press the ENTER button to get into its Schedule Settings page.
4. Choose a schedule and enable it by turning the shuttle ring clockwise.
   - Use the jog dial to make your selection and then press ENTER to enter the schedule's settings.
   - Select the options to record for a single day, the standard business week (MON-FRI), or everyday.
   - Set the time to begin a recording. Set the time to end a recording.

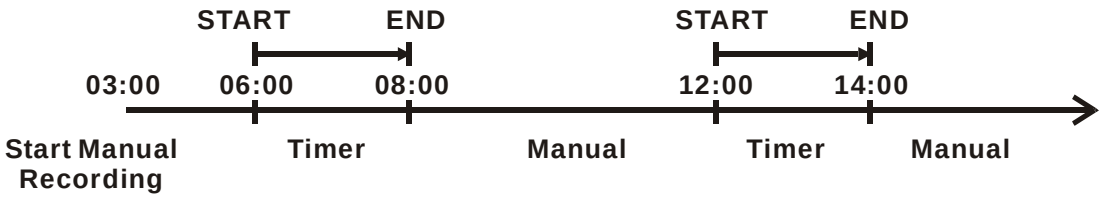
   Note

   The time format displayed is determined by the time mode selected under menu Display Options.
5. On this "Schedule Settings" page, set "Start Record" to "Yes" or "No". If you select "Yes", your EDVR will record from your desired "Start Time" to "End Time" on the day picked by you.
6. If you want to set the "Alarm Settings", "Record Settings" and / or "Motion Settings", then change the corresponding default settings of "Disable" to "Enable" and select "Enter" and press the "Enter" button to get into the corresponding "Settings" page. Please refer to page 60 for more details.
7. After the scheduling is completed, leave the page and save the settings. This device will operate automatically during the specific time period you have scheduled, set, and saved.

8. To stop recording in a scheduled recording session or at any time, press the REC (record) button for at least 3 seconds.

Notes

- If a schedule is set up to record upon alarm triggers but you also want regular recording to proceed within the schedule duration in the absence of alarm, set "Start Record" value to "Yes". If you set it to "No", recording will only start when triggered by the conditions as set up.
- If you activate the recording function before the scheduled recording, the unit will operate recording as shown in the following diagram



Main Menu

1 Quick Settings
2 Display Options
3 Sequence Settings
4 Picture Adjust
5 Operation Log
6 Advanced Settings
7 Default Settings
8 Password Settings
9 Exit Menu

enter: select
▲/▼: item
Call + ◄/►English Francais Espanol Italiano Deutsch

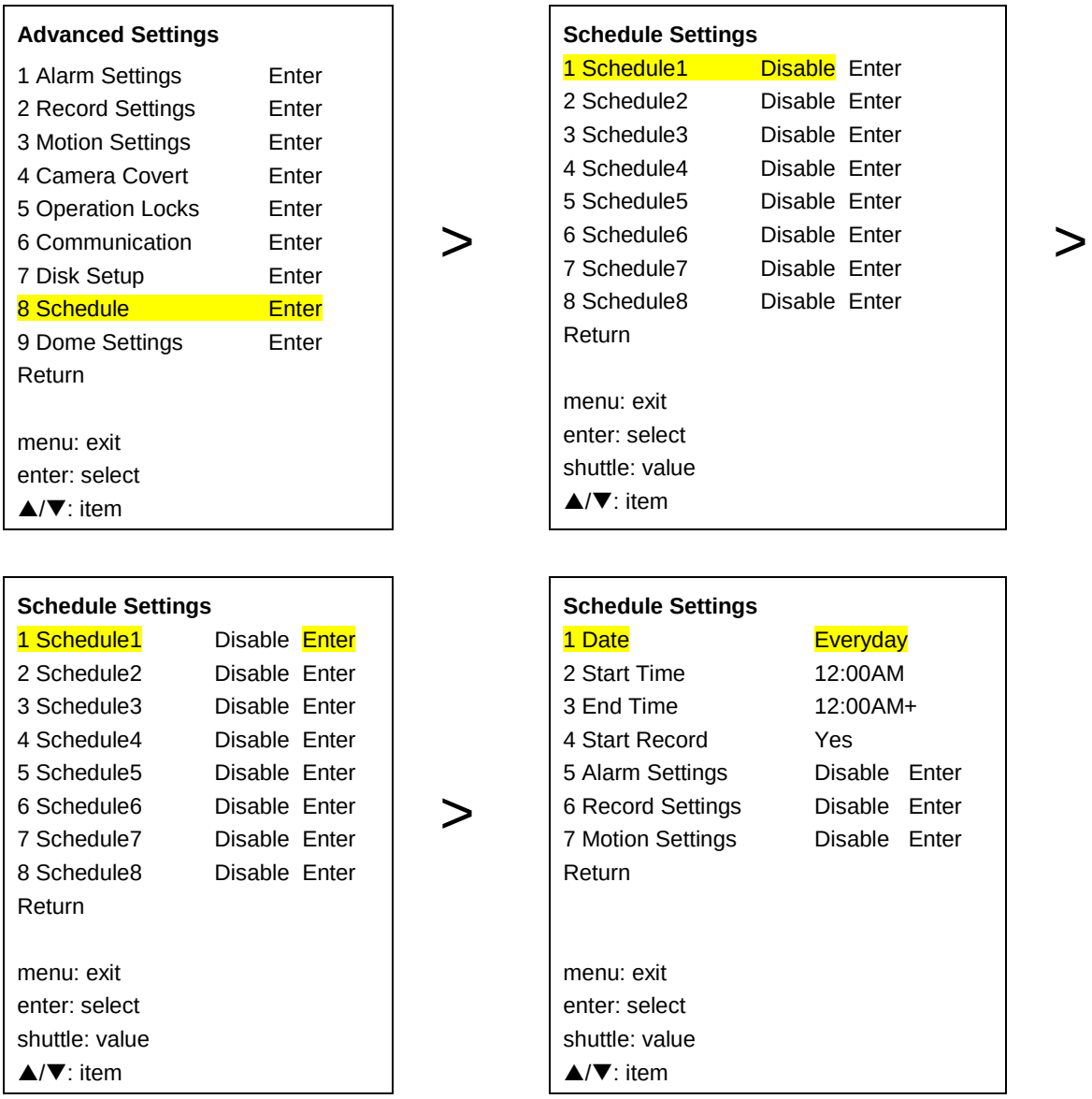
>

Advanced Settings

1 Alarm Settings	Enter
2 Record Settings	Enter
3 Motion Settings	Enter
4 Camera Covert	Enter
5 Operation Locks	Enter
6 Communication	Enter
7 Disk Setup	Enter
8 Schedule	Enter
9 Dome Settings	Enter
Return	

menu: exit
enter: select
▲/▼: item

>



Alarm Recording

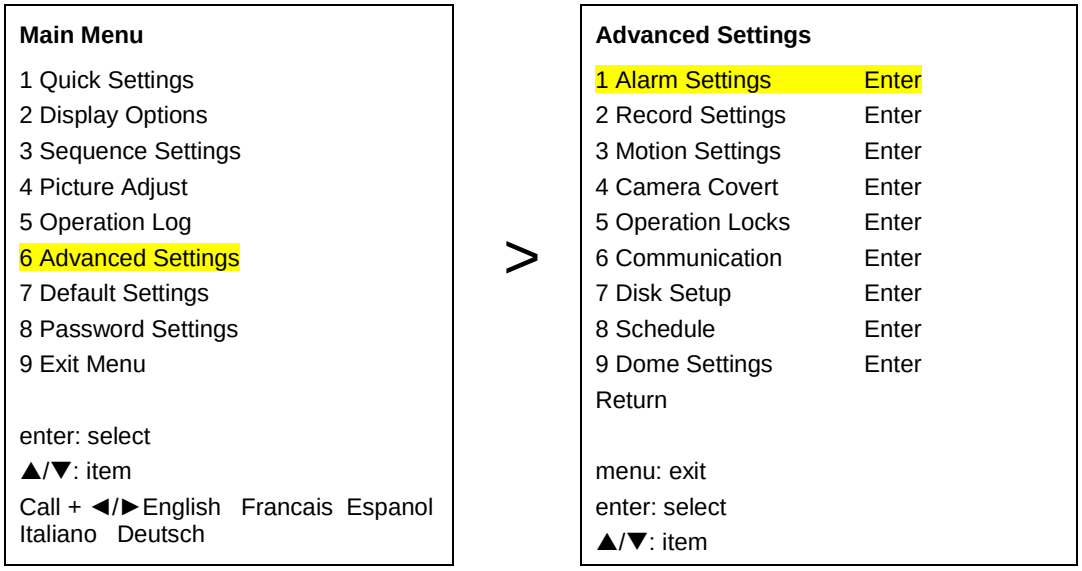
Take the following steps to activate the programmed alarm recording. For configuring Alarm settings, refer to the section, “Alarm Settings,” page 47.

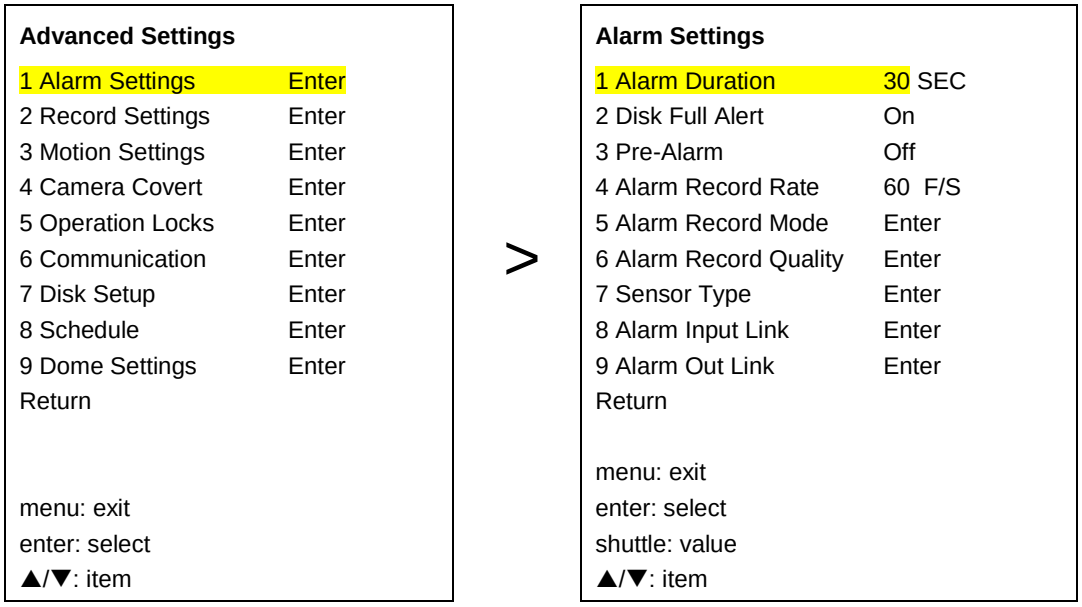
1. Press the MENU button to enter the main menu.
2. Select Advanced Settings and press the ENTER button to enter the Advanced Settings page.
3. Select the Alarm Settings and press the ENTER button to enter the Alarm Settings page.
4. Set the desired time period. The options range from "Transparent" to "Nonstop", from one second to 60 minutes.
5. Set the alarm record rate. The rate can be set between 1 - 60 IPS (or F/S) in one IPS increments.
6. Set the alarm record mode. The options are Normal, Double, Interleaved and Exclusive.
7. Set the alarm record quality. The options are Best, High, Standard or Basic. (Refer to the section, “Alarm Settings,” page 47 for more information.)

8. Set to a "Sensitivity" of from 0.1 to 0.8 seconds
9. Enter and set each channel to activate or deactivate the three modes of Sensor, V-Loss, and Motion in the Alarm Type Link and Alarm Out Link items.

Note

To enable triggered recording on alarm, go to the Alarm Output Link screen, highlight “Start Record” and set its Sensor and/or Motion value to Yes.

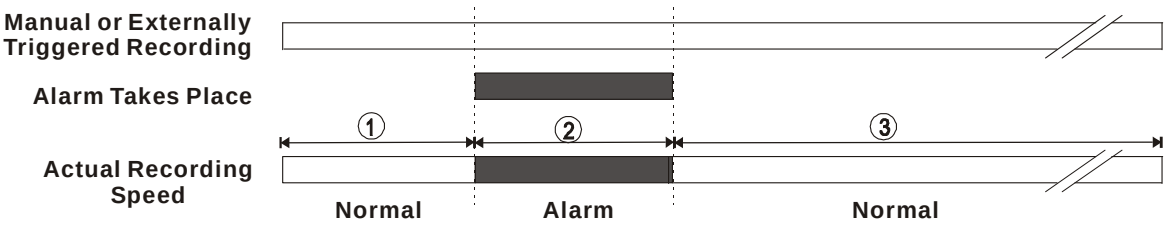




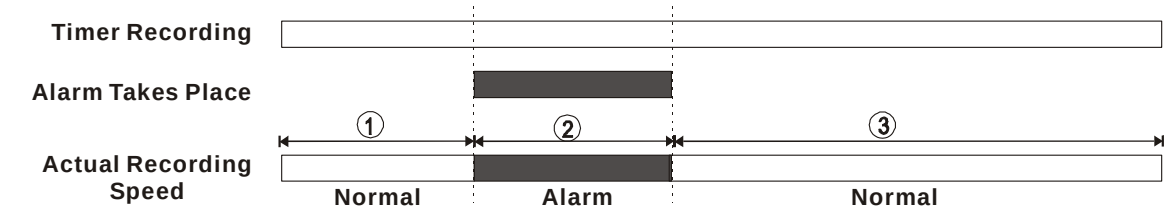
Externally triggered Recording

By connecting the RECORD IN of ALARM I/O on the rear panel of the EDVR, you can activate/deactivate the recording function of an EDVR. The status of recording operations when an alarm takes place is shown in the following diagrams.

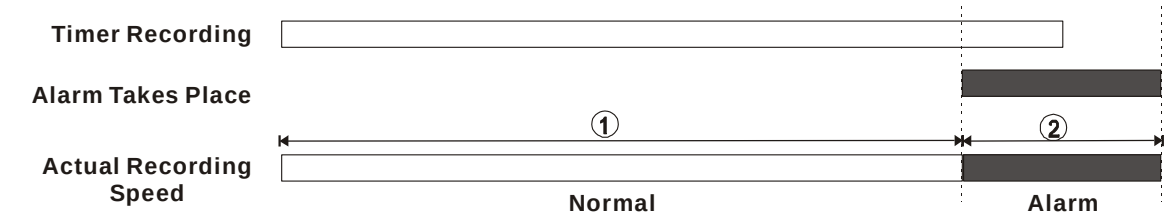
1



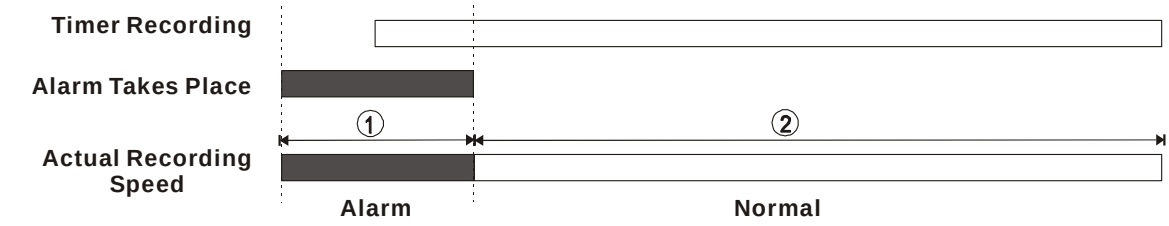
2



3



4



Playback Operations

This section describes the fast, slow, and single-picture playback functions, and details how the unit is to play back a file in a different operation mode. Refer to the following paragraphs specifying the relevant details. When playing a file, the PLAY button will light up, indicating that the EDVR is in the playback mode.

During playback, press the appropriate CH1-CH16 button to view the desired channel (4CH: CH1-CH4 buttons; 9CH: CH1-CH9 buttons). To view the playback of multiple channels simultaneously, press the appropriate Up, Down, Left, and Right buttons. In addition to switching between keys, the ZOOM button (that is, labeled with a magnifying glass icon with plus sign) can also be used to zoom the picture to a 2x2 full-screen view.

Fast Forward/Reverse

There are 6 speeds available for playback: 2x, 4x, 8x, 16x, 30x, and 100x.

While playing back recorded video at recorded speed:

Forward: Turn the Shuttle ring to the right to view the recorded video in the forward direction at a speed faster than the recorded speed. Each subsequent turn of the shuttle to the right increases the forward rate, as 2x, 4x, 8x, 16x, 30x, and 100x.

Reverse: Turn the Shuttle ring to the left to view the recorded video in the reverse direction at a speed faster than the recorded speed. Each subsequent turn of the shuttle to the left increases the reverse rate, as -2x, -4x, -8x, -16x, -30x, and -100x.

Normal: Release the Shuttle ring to return to the normal speed of playback.

Slow Forward/Reverse

There are 6 speeds available for slow playback: 1/2x, 1/4x, 1/8x, 1/16x, 1/30x, and 1/100x.

While playing back recorded video at the recorded speed:

1. Press the PAUSE button for the slow playback mode.
2. **Forward:** Turn the Shuttle ring to the right (clockwise) to view the recorded video in the forward direction at a speed slower than the recorded speed. Each subsequent turn of the shuttle to the right increases the forward rate, as 1/2x, 1/4x, 1/8x, 1/16x, 1/30x, and 1/100x.
3. **Reverse:** Turn the Shuttle ring to the left (counterclockwise) to view the recorded video in the reverse direction at a speed slower than the recorded speed. Each subsequent turn of the shuttle to the left increases the reverse rate, as -1/2, -1/4, -1/8, -1/16, -1/30x, and -1/100x.
4. **Normal:** Release the Shuttle ring and then press the PLAY button to return to the normal speed of playback.

Playback Picture-by-Picture

While playing back recorded video at the recorded speed:

1. Press the PAUSE button for the picture-by-picture mode.
2. There are two ways to play in the picture-by-picture mode − by pressing the PAUSE button or by using the jog dial, but the PAUSE button can only function in a forward direction. However, the jog dial can act in both a forward and a backward direction, as well as in picture-by-picture mode.
   - Press the PAUSE button to display one frame of a picture at a time in the forward direction.
   - Turn the jog dial clockwise to display one frame of a picture at a time in the forward direction. Turn the jog dial counterclockwise to display one frame of a picture at a time in the backward direction.
3. Press the PLAY button to return to the normal speed of playback.

Search Operations

This section describes how to access recorded video.

Full List Search

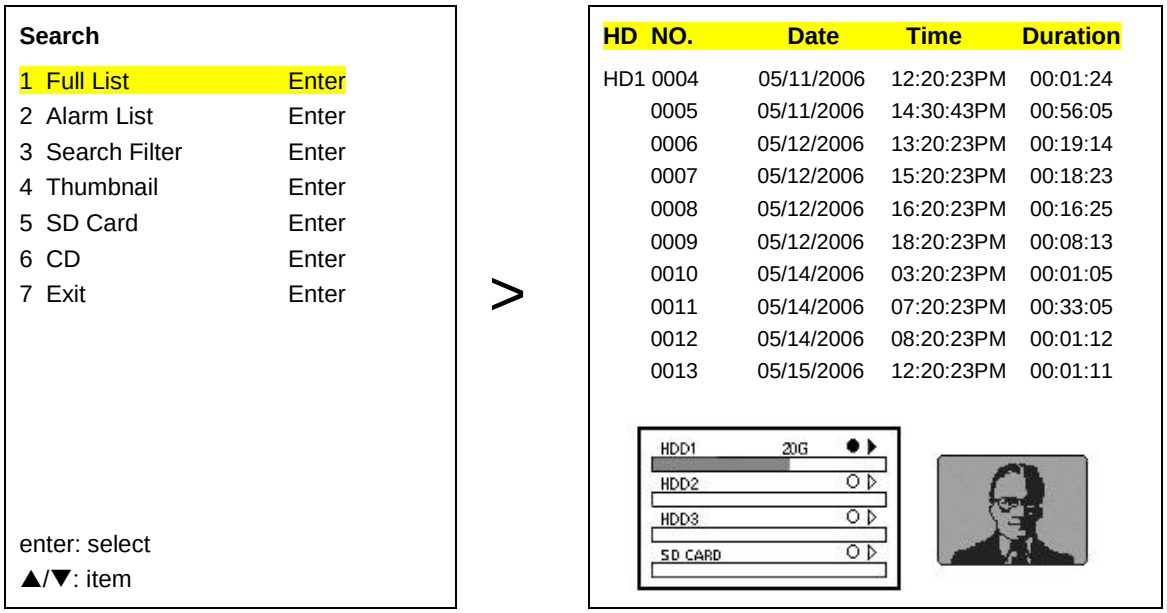
Take the following steps to proceed with the full-list search function.

1. Press the SEARCH button to enter the search mode.
2. Select Full List and press the ENTER button to access the complete list of recorded video.
3. Highlight the specific recorded video you require and press the ENTER button to display the selected video.

Key Operation

Press the "▲"and "▼"buttons to select a video; press the "◄" and "►"buttons to turn a page.

4. To exit press the SEARCH button.



Note

The maximum number of lists for a hard disk drive (HDD) is 4000.

Alarm List Search

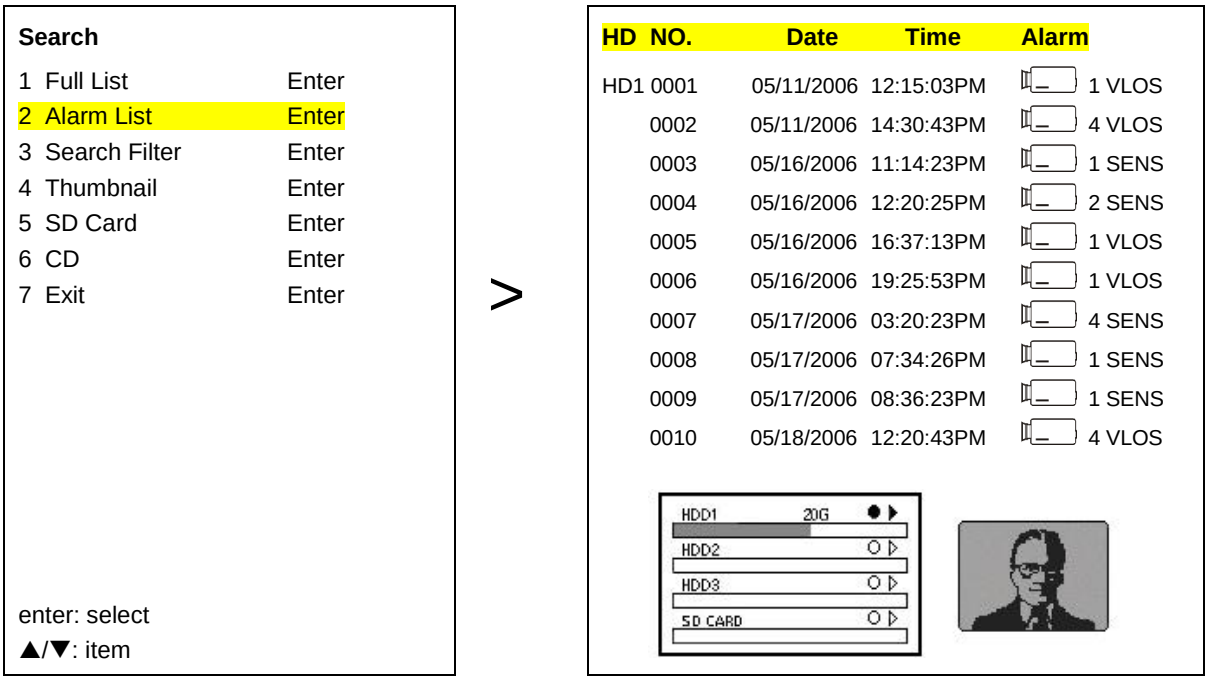
Take the following steps to proceed with the alarm-list search function.

1. Press the SEARCH button to enter the search mode.
2. Select Alarm List and press the ENTER button to access the complete list of alarm-event recorded video.
3. Highlight the specific recorded video you require and press the ENTER button to display the selected video.

Key Operation

Press the "▲"and "▼"buttons to select a video; press the "◄"and "►"buttons to turn a page.

4. To exit press the SEARCH button.



Search Filter

Complete the following steps to proceed with the time-list search function.

1. Press the SEARCH button to enter the search mode.
2. Select Search Filter and press the ENTER button to access the Search Filter page.
3. The Alarm Filter can search four modes: Disable, Sensor, V-Loss, and Motion.
4. Set the channel number you wish to search for the recorded video.

Note

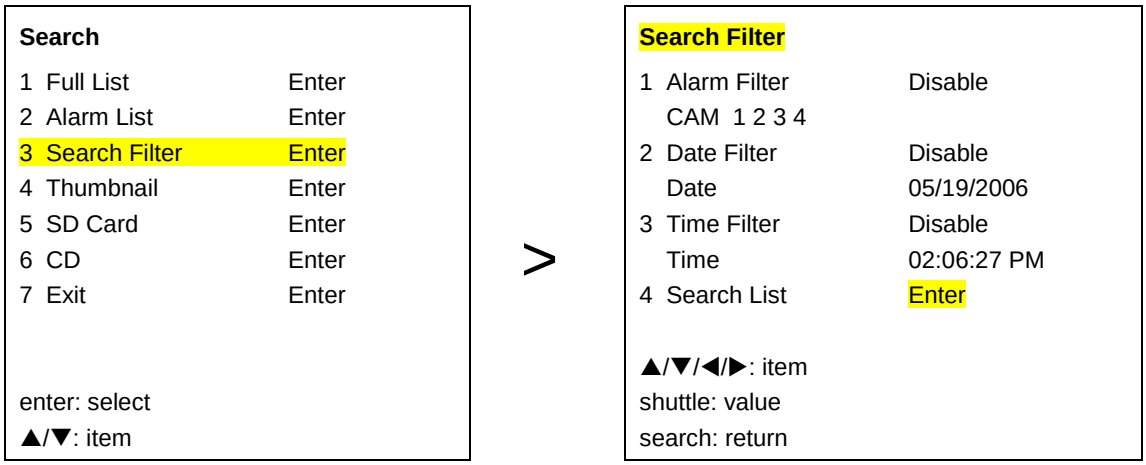
Highlight each channel using the arrow buttons. Use the shuttle ring to select the channel.

5. Set the date period you wish to search for the recorded video.
6. Set the time period you wish to search for the recorded video.
7. Select Search List on the Search Filter page and press the ENTER button to start searching for and displaying the desired image.
8. If no video is found, return to the Search Filter page and repeat steps 3 through 7 to initiate another search.

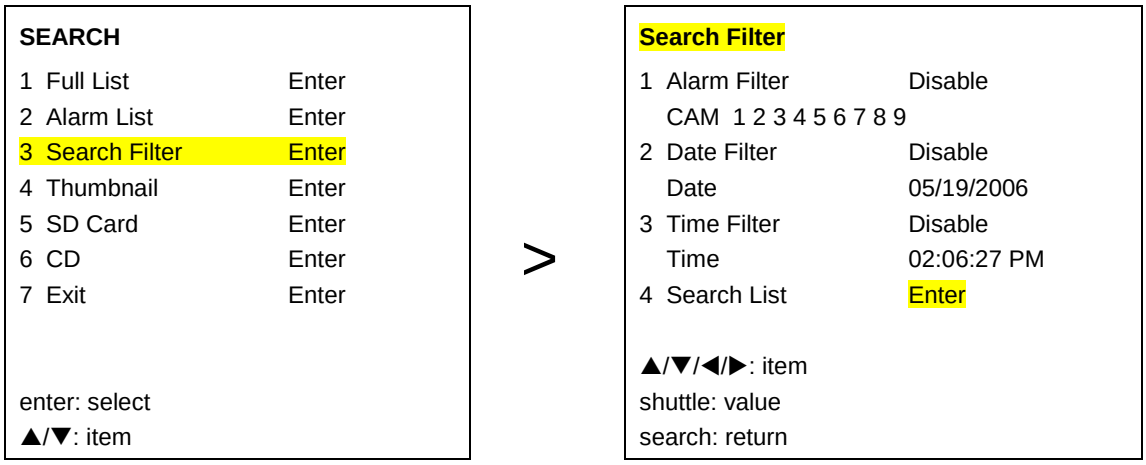
Note

From the following figures, refer to the figure that depicts your system (that is 4CH, 9CH, or 16CH).

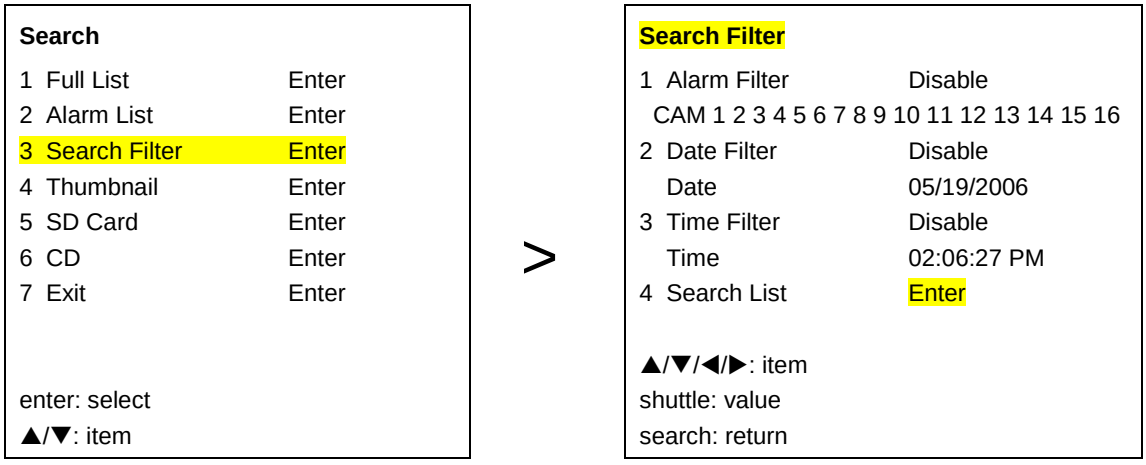
4CH EDVR



9CH EDVR



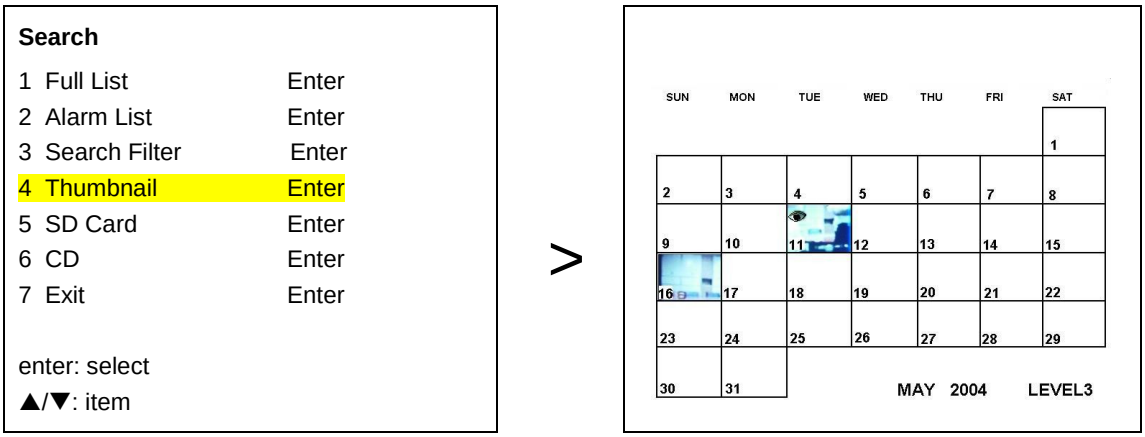
16CH EDVR



Thumbnail Search

Complete the following steps to proceed with the thumbnail search function.

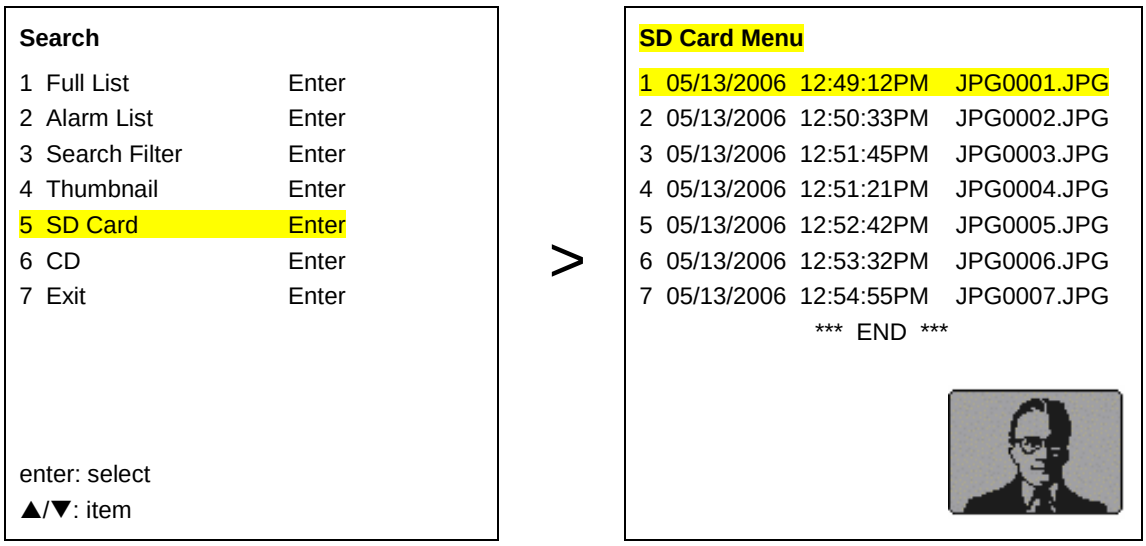
1. Press the SEARCH button to enter the search mode.
2. Select THUMBNAIL and press the ENTER button to access the thumbnail page.
   - Use the "⮜" and "⮞"buttons to move eye focus and select the image you wish to search for in the recorded video.
   - Use the Shuttle Ring to start playback.
3. There are 8 levels of recording range modes. Use the "⮝" and "⮟" buttons or use the Jog dial to choose the Year, Month, Day, 1 Hour, 10 Minutes, 1 Minute, 10 Seconds, or 1 Second interval. Select the specific frame you require to enter the previous or next level.
4. On reaching the critical point at any level, you can start playback by just clicking the PLAY button or the ENTER button.



SD Card Menu Search

Complete the following steps to use the SD card search function.

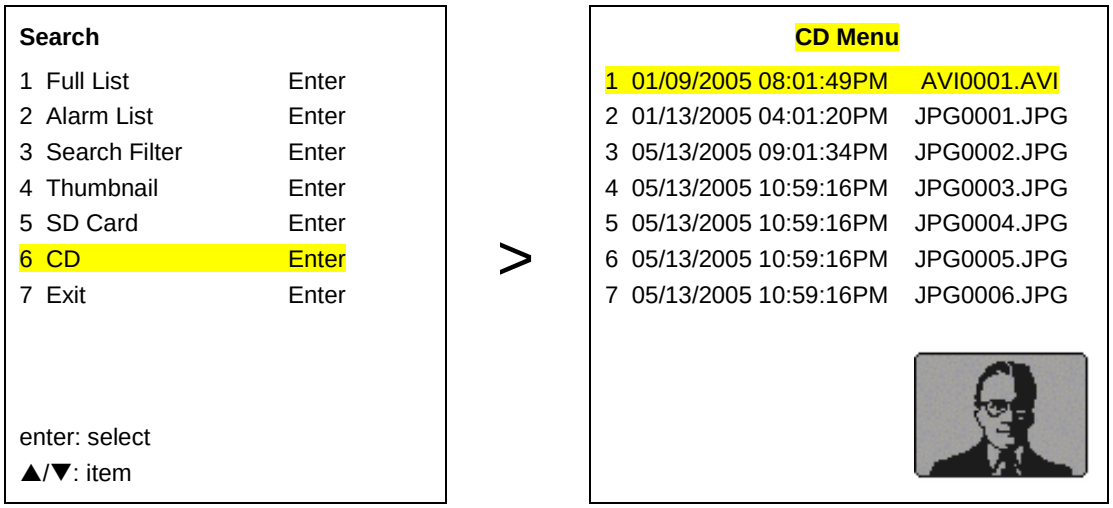
1. Insert an SD Card into the SD card slot of the front unit.
2. Press the SEARCH button to enter the search mode.
3. Select the SD Card and press the ENTER button to access the complete list of JPEG files.
4. Highlight the specific JPEG file you require and press the ENTER button to display the image.
5. If you need another image, press the ENTER button to return to the SD Card Menu page and repeat step 4 for another search.
6. If you would like to delete a JPEG file from the SD card, highlight the specific JPEG file and press the ENTER button to display the image, then press the DOWN button and select Yes to delete the image.



CD Menu

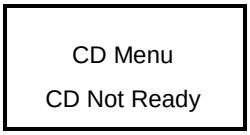
Complete the following steps to proceed with the CD search function.

1. Place the disk in the tray.
2. Press the SEARCH button to enter the search mode.
3. Select the CD option and press the ENTER button to access the complete list of JPEG files.
4. Highlight the specific JPEG file you need and press the ENTER button to display the image.
5. If you need another JPEG file, press the ENTER button to return to the CD Menu page, and repeat step 4 to complete another search.



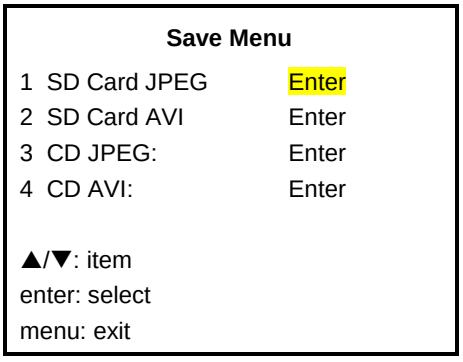
Note

If you select the menu item CD in error and have forgotten to insert a disk: Refer to the following screen example for the status message, and insert a CD-ROM or press the SEARCH button to exit the CD Menu.



Save Menu Backup Operations

The Save Menu provides backup options for still and motion video files (in JPEG and AVI format, respectively) on SD cards and CD-RWs. The individual menu items are described in the following sections.



Security Digital Card Backup Operations

The Secure Digital (SD) card slot (EDVR front panel) has four functions as described in the following sections.

1. Archive a Still Image (JPEG) on an SD Card.
2. Archive AVI Format Video Clips onto an SD Card.
3. Back up System Settings onto an SD Card.
4. Update System Software.

Notes

- The JPEG file format can be played and deleted from the EDVR. Refer to the section “SD Card Menu Search,” page 28.
- The AVI file format cannot be played and deleted from the EDVR. It can only be played in a card reader connected to a computer.
- The file format can be selected on the Save Menu.

Archive a still image on an SD card

Complete the following steps to archive a still image onto an SD card.

1. Insert an SD Card into the SD card slot on the front panel.
2. Start playing back the recorded video and select the desired channel.
3. Press the PAUSE button to freeze the desired image.
4. Press the MENU button to enter the Save Menu page.

Note

The number of images that can be stored on an SD card depends on the SD card capacity. You can then print the saved images from any computer. The image is stored in the JPEG compressed format. If more than one image is stored on an SD card, file names will be assigned in sequence as shown in the following:

SAVE JPG0001.JPG TO SD CARD

SAVE JPG0002.JPG TO SD CARD

…

SAVE JPG000N.JPG TO SD CARD

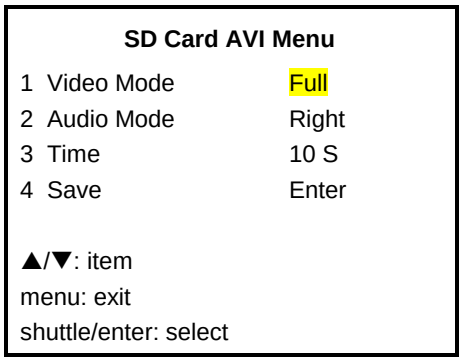
A new JPEG folder will be auto created each time a new record session is initiated for JPEG images. To view the desired files the appropriate JPEG sub folder has to be highlighted. After viewing a JPEG file it s necessary to press the SELECT button again to move through the menu. The AVI files are not grouped into folders.

The EDVR can only playback images recorded on its hard drive(s). Files recorded from the EDVR to CD or SD card cannot be played back on the EDVR. You must use a PC or compatible device to view the files.

Archive AVI format video clips onto an SD card

Complete the following steps to archive a critical video onto an SD card.

1. Insert an SD Card into the SD card slot on the front panel.
2. Start playing back the recorded video and select a desired channel.
3. Press the PAUSE button to freeze the desired pictures.
4. Press the MENU button to enter the Save Menu page.
5. Select the menu item SD Card AVI and press the ENTER button to enter the SD Card AVI Menu page.



6. Set the desired settings in the AVI save file setup mode.

Note

The number of video clips that can be stored on an SD card depends on the SD card capacity. The video clip is stored in the AVI compressed format. If more than one video clip is stored on an SD card, file names will be assigned in sequence as shown in the following:

SAVE AVI0001.AVI TO SD CARD

SAVE AVI0002.AVI TO SD CARD

…

SAVE AVI000N.AVI TO SD CARD

Backup System Settings onto an SD Card

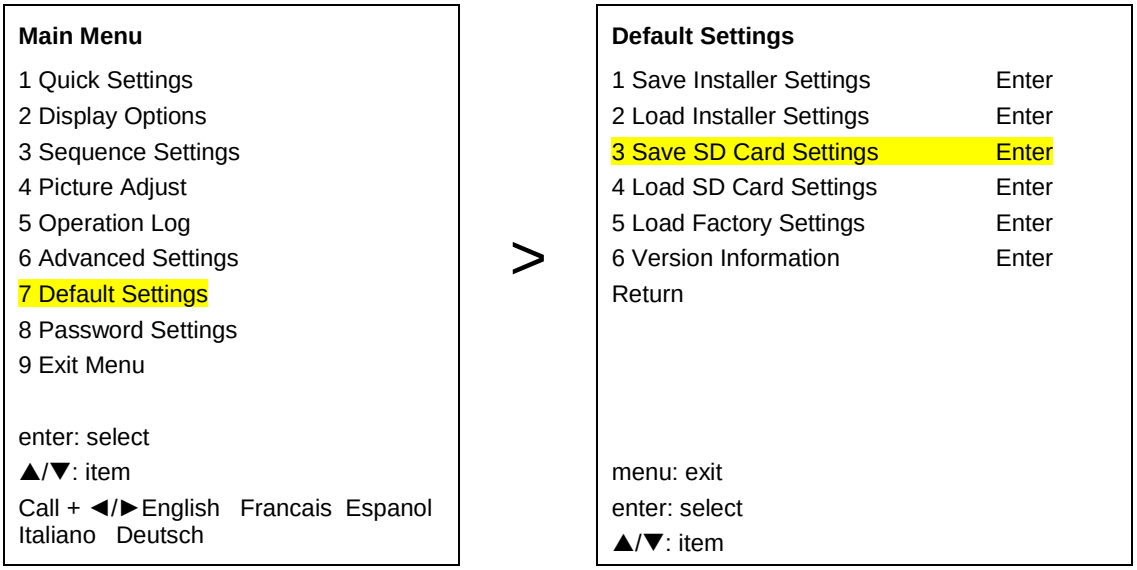
The EDVR offers a quick setup method by using an SD card. You can use this feature to instruct the EDVR to save all of its system settings onto the SD card so that they can be loaded onto another EDVR, thus simplifying the setup and configuration of a group of EDVRs.

Save the system settings onto an SD Card

1. Insert an SD card into the SD card slot.
2. Press the MENU button to enter the Main Menu page.
3. Select Default Settings and press the ENTER button to enter the Default Settings page.
4. Select the menu item Save SD Card Settings and press the ENTER button to enter the settings saving mode.
5. Set Save SD Card Settings to Yes. The system settings information will be automatically saved onto the SD card.

Transfer the system settings information to another EDVR

1. Insert the SD card that has the stored the system setting info into the EDVR.
2. Press the MENU button to enter the Main Menu page.
3. Select Default Settings and press the ENTER button to enter the Default Settings page.
4. Select the Load SD Card Settings and press the ENTER button to enter the loading mode.



5. Set the Load SD Card Settings option to Yes and press ENTER.

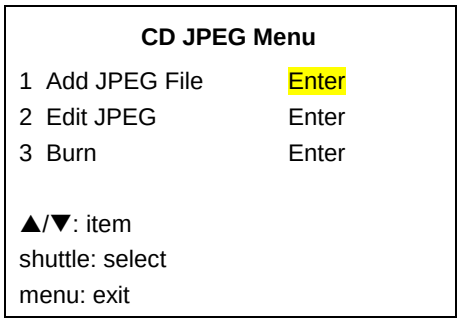
Update System Software

If the system software (firmware) of the EDVR needs to be upgraded, refer to the appendix, “System Software Updates,” page 103, for instructions.

CD JPEG: Archive still images on a CD-R

To archive still images on a CD-R, complete the following steps.

1. Insert a blank, writeable disk into the CD-RW tray. You'll hear a signaling beep to tell you the disk is ready.
2. Play back the video to find the desired image. Press PAUSE when you find it.
3. Press the MENU button and from the Save Menu, select menu item 3 (CD JPEG), and press ENTER.
4. Select item 1 from the CD JPEG Menu: Add your image to the buffer. The message, Add OK, will appear as a confirmation. If you wish to add more images to the buffer, press any button to return to the CD JPEG Menu.



5. Use the jog dial to select the next image. Repeat step 4 to add this image to the buffer.

   Repeat step 4 until all images have been selected.
6. To remove files from your buffer: from the CD JPEG Menu, select menu item 2, Edit JPEG.
7. From the EDIT JPEG page, use the jog dial to review your selected images. As the jog dial is turned, each image is selected (highlighted) in turn.

   You can now choose to delete or not delete any image by pressing the Up (▲) or Down (▼) buttons to select an image. Select No (do not delete the image) or Yes (delete the image). When you are finished, press the Menu button to exit this page.
8. When you have completed your image selections: from the CD JPEG Menu, select item 3, Burn.

Note

Several minutes may be needed for the device to complete the writing process to the disk.

9. When the CD-RW drive has completed creating the CD with your files: press the EJECT button to open the CD tray, take out the disk, and place the disk in a PC CD-ROM drive to view your selections.

CD AVI: Archive AVI video clips on a CD-R

To archive AVI video clips on a CD-R, complete the following steps.

1. Insert the disk in the CD-RW drive tray. The drive will beep to confirm your disk is ready.
2. Play back the video to find the desired image. Press PAUSE when you want to start.
3. Press the MENU button to access the Save Menu. Use the **Up** (▲) or **Down** (▼) buttons to select menu item 4, CD AVI, and press ENTER.
4. The CD AVI Menu provides the following selections. Use the **Up** (▲) or **Down** (▼) buttons to select a menu item. Use the Shuttle ring to set the value for the item, as listed in the following.

CD AVI Menu

1 Video Mode	Full
2 Audio Mode	Right
3 Time	10 SEC
4 Burn	Enter

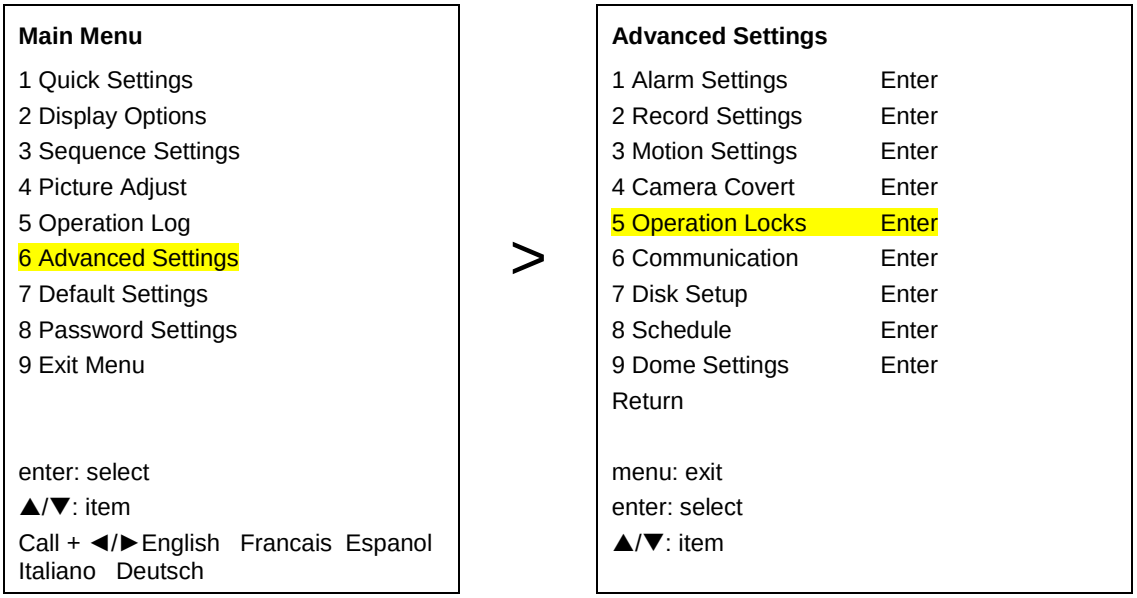
▲/▼: item
shuttle: select
menu: exit

5. After you select a menu item, use the shuttle ring to select the appropriate value for that item:
   - Video Mode: "Full" or "CIF"
   - Audio Mode: "Right", "Left", or "Disable" as your audio mode
   - Time: Length of time of your saved recording, from 10 seconds up through 30 minutes
   - Burn: Select to start burning your video on the disk
6. Press the EJECT button to open the CD tray, take out the CD, and insert it in a PC CD drive to view your video.

Key Lock Operations

Activate the Key Lock Function

1. Press the MENU button to enter the Main Menu page.
2. Select Advanced Settings to enter the Advanced Settings page.
3. Select Operation Lock to enter the Operation Lock mode.
4. Select Front Button Lock to enable its function.
5. Exit and save, activating the key lock function.



Deactivate the Key Lock Function

To deactivate the key lock function, turn the Front Button Lock to Off.

Triplex Operations

The triple operations comprise the Live, Play, and simultaneous Live and Play functions.

You can also press the REC (record) button to simultaneously show the Live, Play, and Record functions. The three modes played together comprise the “Triplex” function.

Live Mode

Simultaneous live viewings of any one channel in multiple channels

The following provides an example of how to set up simultaneous live viewings of any one channel viewed in multiple channels.

1. Use the ENTER button to show a red-framed Channel 1.
2. Press the ENTER button to move the red-framed rectangle to Channel 2, and so on to the other channels consecutively until you arrive at your chosen channel.
3. Click any specific channel button to show that channel’s live images in the particular space you’ve arrived at.

Play Mode

Simultaneous viewing of a particular channel in Play mode in any number of channels

The following provides an example of how to set up simultaneous viewings of any recorded channel viewed in multiple channels.

1. Press the SEARCH button to enter the SEARCH page to select a recorded video. Play the record.
2. Use the ENTER button to show a red-framed Channel 1.
3. Press the ENTER button to move the red-framed rectangle to Channel 2, and so on to the other channels consecutively until you arrive at your chosen channel.
4. Click any specific channel button to show that channel's recorded images in the play mode in the particular space you've arrived at.

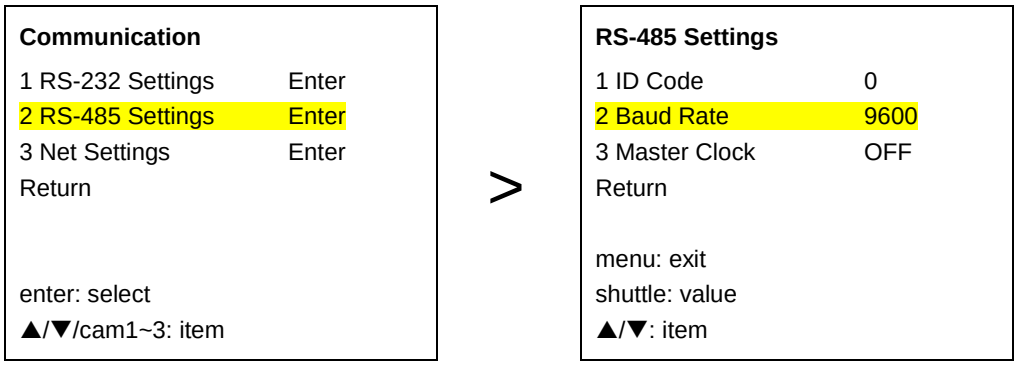
Simultaneous Live and Play on-screen functions

The following provides an example of how to set up simultaneous viewings of a live and a recorded channel viewed in multiple channels.

1. Press the SEARCH button to enter the SEARCH page to select a recorded video. Play the record.
2. Press the PAUSE button to halt the images.
3. Use the ENTER button to show a red-framed Channel 1.
4. Press the ENTER button to move the red-framed rectangle to Channel 2, and so on to the other channels consecutively until you arrive at your chosen channel.
5. Click any specific channel button to show that channel's live images in the particular space you've arrived at.
6. Press the PLAY button to resume playing the playback record of any channel.

Controlling the PTZ Camera using the Front Panel Buttons

Setting the Baud Rate and the Channel Protocols



1. Connect your PTZ cameras with the EDVR via the EDVR's signal and RS-485.
2. Press the MENU button and enter the Main Menu page.
3. Chose item 6, Advanced Settings, and press ENTER.
4. Choose item 6, Communication, and press ENTER.
5. Choose item 2, RS-485 Settings, and press ENTER.
6. Choose item 2, Baud Rate. Use the shuttle to change the baud rate of your PTZ cameras.

Note

The baud rate of the PTZ cameras must be the same for all of the cameras. Set all of your cameras' uniform baud rate in the Baud Rate entry on the RS-485 Settings page (that is, on this page).

7. Use the Down button to select Return, and press ENTER.
8. Press Return again, and press ENTER.
9. On the Advanced Settings page, choose item 9, Dome Settings, and press ENTER.
10. On this page you can set all of the cameras' protocol settings. Change each setting to the camera protocol on that channel.
11. After you set all of the channel protocols, choose Return, and press ENTER.
12. Choose Return again, and press ENTER.
13. Choose item 9, Exit Menu, and press ENTER.
14. Choose Exit Menu with Saving and press ENTER.
15. Your menu settings are complete.

Dome Settings

	ID	Protocol	
CAM1	1	AD422	
CAM2	2	AD422	menu: exit
CAM3	3	AD422	shuttle: value
CAM4	1	None	▲/▼: item
CAM5	1	None (for 9/16CH EDVR only)	
CAM6	1	None (for 9/16CH EDVR only)	
CAM7	1	None (for 9/16CH EDVR only)	
CAM8	1	None (for 9/16CH EDVR only)	
CAM9	1	None (for 9/16CH EDVR only)	
CAM10	1	None (for 16CH EDVR only)	
CAM11	1	None (for 16CH EDVR only)	
CAM12	1	None (for 16CH EDVR only)	
CAM13	1	None (for 16CH EDVR only)	
CAM14	1	None (for 16CH EDVR only)	
CAM15	1	None (for 16CH EDVR only)	
CAM16	1	None (for 16CH EDVR only)	
Return			

Using the EDVR Front Panel to Control the PTZ Cameras

Press the DISPLAY and ZOOM buttons simultaneously on the EDVR front panel to toggle in and out of the PTZ MODE. While in PTZ mode, both buttons illuminate and flash. Refer to the section PTZ Operation on page 6 for details.

When a dome camera is selected press the DISPLAY button alone to bring up the help information.

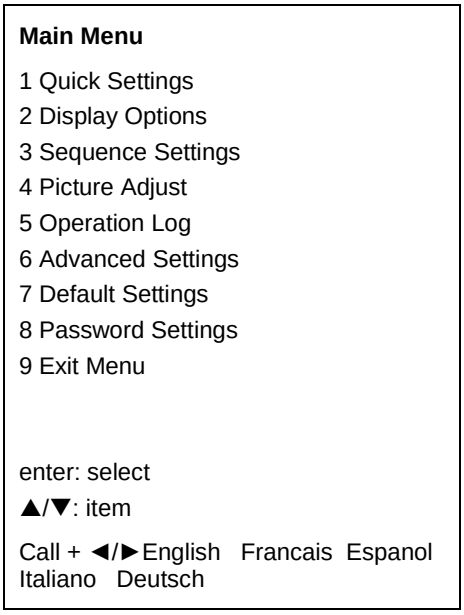
DISPLAY button **>**

CAM1 AD422 1

◄►▲▼: PAN/TITL
SHUTTLE: ZOOM
MENU/ENTER: FOCUS
SEQ. /SEARCH: IRIS
CALL: GOTO PRESET
FREEZE: SET PRESET
DISPLAY: SHOW HINT

Configuration Menus

The EDVR is configured through a series of menus, easily accessed using the front panel buttons. From the main menu, there are 8 submenus plus exit from the menu, as shown in the following.



The following sections will guide you through these menus, and will summarize each menu item's purpose and options. You can use the ▲ (Up) and ▼ (Down) buttons, or rotate the jog dial, to select a menu item. Once you have selected an item's system settings, the on-screen menu allows you to set up the key features of the unit.

The functions of the various buttons within the menu-setup mode are described in the following paragraphs.

Note

For the 9CH and 16CH versions of the EDVR, to select a menu item, you can also use the corresponding channel number button from Channels 1 through 9 located near the top edge of the front panel.

Using the Front Panel Buttons

The following sections describe the EDVR front panel buttons that are used to navigate the configuration menus and to set parameters in them. Some configuration parameters can also be set using the EDVR Client software (refer to the section "EDVR Client Software," page 72).

MENU button

Press to enter the Main Menu page. You can also use this button to return directly to the Main Menu page from any other page. After returning to the Main Menu page, you can push the MENU button again and then enter to exit the menu system page.

▲ (Up) and ▼ (Down) buttons

Press to select a desired item.

◄ (Left) and ► (Right) buttons

Press to move within a desired option or value.

ENTER button

Press to enter a selected item.

Shuttle Ring

Turn the Shuttle ring to change the value of any desired option.

Jog Dial

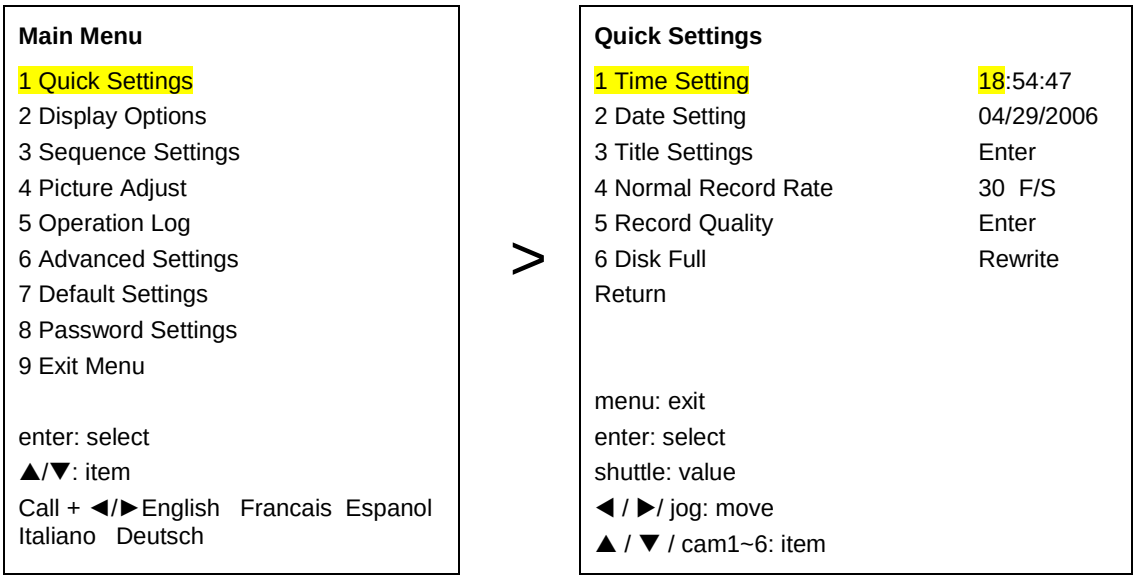
Turn the Jog dial to move the focus in any direction you want.

Channel Buttons (1 – 9 or 1 – 16)

For the 9CH and 16CH versions of the EDVR only, to select a menu item, you can also use the corresponding channel number button from Channels 1 through 9 located near the top edge of the front panel.

Quick Settings

This page enables you to quickly configure your basic settings. For more detailed changes select the item to view the options available.



1. Time Setting

Set the system time.

2. Date Setting

Set the system date.

3. Title Settings

Select a channel (camera) title within 9 characters. After entering this page, you can choose any particular channel's title and use the shuttle ring to make changes to other channels (cameras).

For example, you can change the title of channel 1 from the default setting CH1 to CH1<EXIT>.

4. Normal Record Rate

Select this item and use the shuttle ring to adjust your recording rate out of our available rate range from 0 to 60 (NTSC), or 0 to 50 (PAL). If you choose a speed rate, your selected recording rate will be divided proportionally between the numbers of channels you use.

5. Record Quality

Enter and choose each channel's quality out of a quality range from Best, High, Standard, and Basic.

6. Disk Full

This option determines how storage media will be used in case of a full disk.

Rewrite: When the hard disk is full, the device continues recording by displacing the oldest data first.

Stop: When the hard disk is full, the device will stop recording.

Note

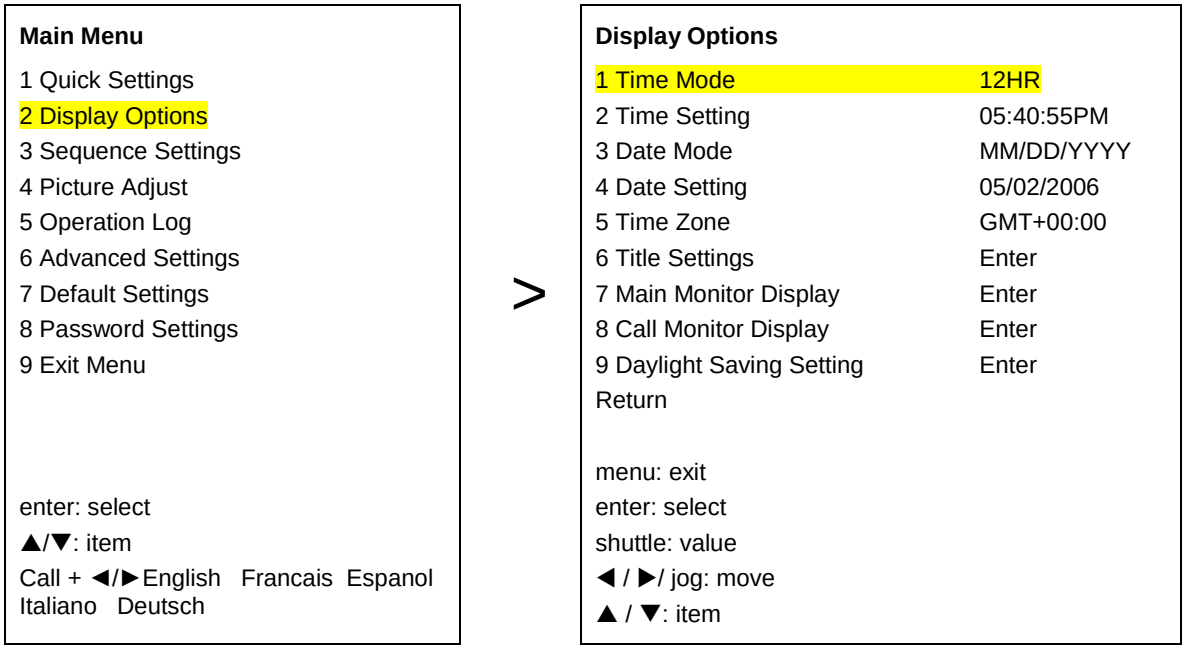
Press the STOP or DISPLAY button to stop the beeping sound.

Return

Choose this item and press the ENTER button to go back to the previous page (menu).

Display Options

This item allows you to configure the display labels (titles) on your screen.



1. Time Mode

You have a choice between using a 12 HR mode or a 24 HR mode.

12 HR: Displays the time between 1 and 12 using AM and PM.

24 HR: Displays the time using a 24-hour reading.

2. Time Setting

Configure the system time here.

3. Date Mode

Displays the date in terms of months, days, or years, in the following 3 alternative formats: MM/DD/YYYY, DD/MM/YYYY, and YYYY/MM/DD.

4. Date Setting

Change the system date here.

5. Time Zone

Choose your time zone.

6. Title Settings

Sets the desired title for each channel. You can use the shuttle ring to change the titles.

7. Main Monitor Display

Enter the Main Monitor Display menu page.

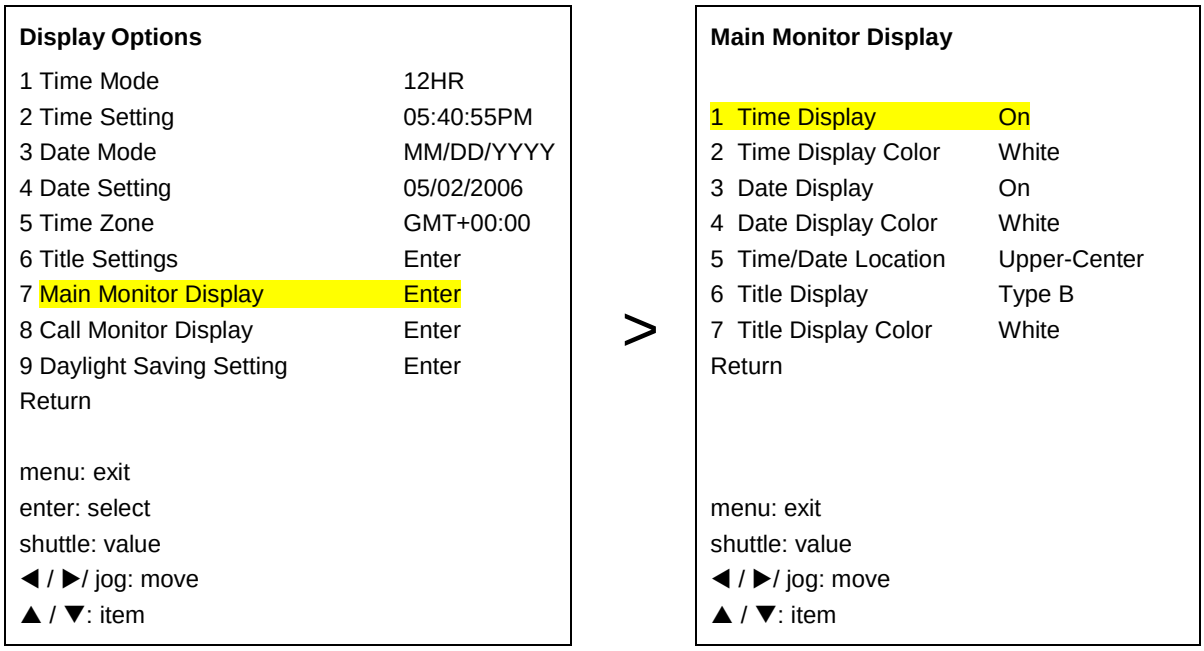
8. Call Monitor Display

Enter the Call Monitor Display menu page.

9. Daylight Saving Setting

Enter the Daylight Saving Setting menu page to configure the appropriate start and end dates and times (if any) for daylight saving for your location.

Display Options: Main Monitor Display Menu



1. Time Display

Select On (enable) or Off (disable).

2. Time Display Color

Choose from white, black, red, green, blue, and yellow.

3. Date Display

Select (enable) or Off (disable).

4. Date Display Color

Choose from white, black, red, green, blue, and yellow.

5. Time/Date Location

Position time/date labels in any of six positions: top - left, top - middle, and top - right; and bottom - left, bottom - middle, and bottom - right.

6. Title Display

This item has 3 options: Type A, Type B, and Off.

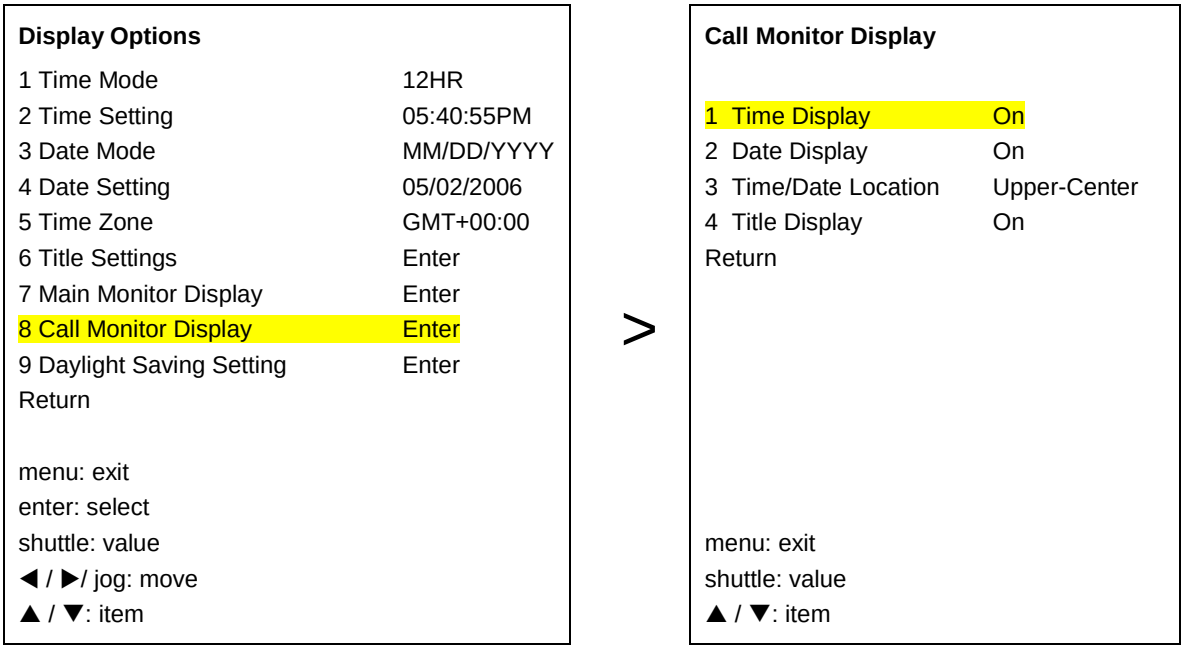
7. Title Display Color

Choose from white, black, red, green, blue, and yellow.

Return

Go back to the previous Display Options page.

Display Options: Call Monitor Display Menu



1. Time Display

Enable On to activate the call monitor, and Off to disable.

2. Date Display

Select On to enable and Off to disable.

3. Time / Date Location

The time and date labels can be placed at or changed to any of six positions: Upper-Left, Upper-Center, and Upper-Right, and Lower-Left, Lower-Center, and Lower-Right.

4. Title Display

Select On to activate and Off to deactivate.

Return

Go back to the previous Display Options page.

Display Options: Daylight Saving Setting Menu

This entry allows users to set the daylight saving time.

1. None

Disables the daylight saving time.

2. Europe GMT +00:00

Enables daylight saving time for the following dates and times: Daylight saving time begins at 1:00 a.m. on the last Sunday of March. Daylight saving time ends at 2:00 a.m. on the last Sunday of October.

3. Europe GMT +01:00

Enables daylight saving time for the following dates and times: Daylight saving time begins at 2:00 a.m. on the last Sunday of March. The measurement of reverts to standard time at 3:00 a.m. on the last Sunday of October.

4. Europe GMT +02:00

Enables daylight saving time for the following dates and times: Daylight saving time begins at 3:00 a.m. on the last Sunday of March. Daylight saving time ends at 4:00 a.m. on the last Sunday of October.

5. Russia

Enables daylight saving time for the following dates and times: Daylight saving time begins at 2:00 a.m. on the last Sunday of March. Daylight saving time ends at 3:00 a.m. on the last Sunday of October.

6. North America

Enables daylight saving time for the following dates and times: Daylight saving time begins at 1:00 a.m. on the second Sunday of March. Daylight saving time ends at 2:00 a.m. on the first Sunday of November.

7. Australia

Daylight saving time begins at 2:00 a.m. on the last Sunday of October. Daylight saving time ends at 2:00 a.m. on the last Sunday of March.

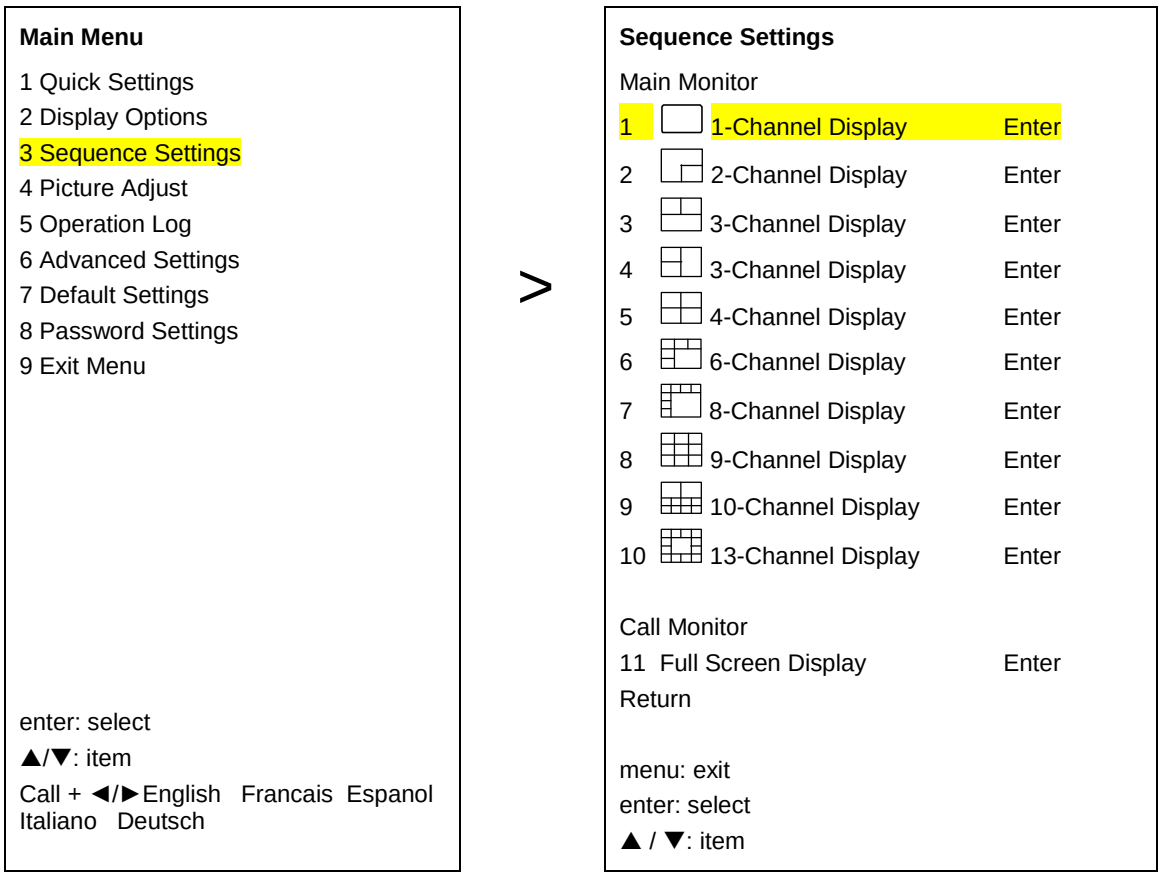
Return

Choose this item and press the ENTER button to go back to the previous page.

Sequence Settings Menu

This page enables you to select from ten modes to configure the sequence of displays for the main monitor, and a single mode for the call monitor.

The dwell time for each of the displays can be set between 0 (no - show) and 99 seconds when you press the SEQ (Sequence) button (default = 3 sec.). To set dwell time for each camera, first select a display mode from the Sequence Settings menu, then press ENTER. Select a camera, and use the shuttle ring to change the dwell value for a camera. When you select a camera, you will see that camera's video in the lower right corner of the display. Press Return or MENU to return to the Sequence Settings menu.



Note

In the Sequence Settings menu, items 5 through 7 are for the 9CH and 16CH EDVR versions, and items 8 through 10 are for the 16CH EDVR version only.

1. 1- Channel Display

Set a full-screen sequence.

2. 2- Channel Display

Set full-screen mode with an inset, either of which can be in the sequence mode.

3. 3- Channel Display

Set a triple window mode, with any one of them in sequence status.

4. 3- Channel Display

Set a different arrangement of three windows, with any one of them being sequential.

5. 4- Channel Display

Set 4 windows, one sequential (for the 9CH and 16CH EDVR versions only).

6. 6- Channel Display

Set 6 windows, one sequential (for the 9CH and 16CH EDVR versions only).

7. 8- Channel Display

Set 8 windows, one sequential (for the 9CH and 16CH EDVR versions only).

8. 9-Channel Display

Set 9 windows, one sequential (for the 16CH EDVR version only).

9. 10-Channel Display

Set 10 windows, one sequential (for the 16CH EDVR version only).

10. 13-Channel Display

Set 13 windows, one sequential (for the 16CH EDVR version only).

11. Full Screen Display

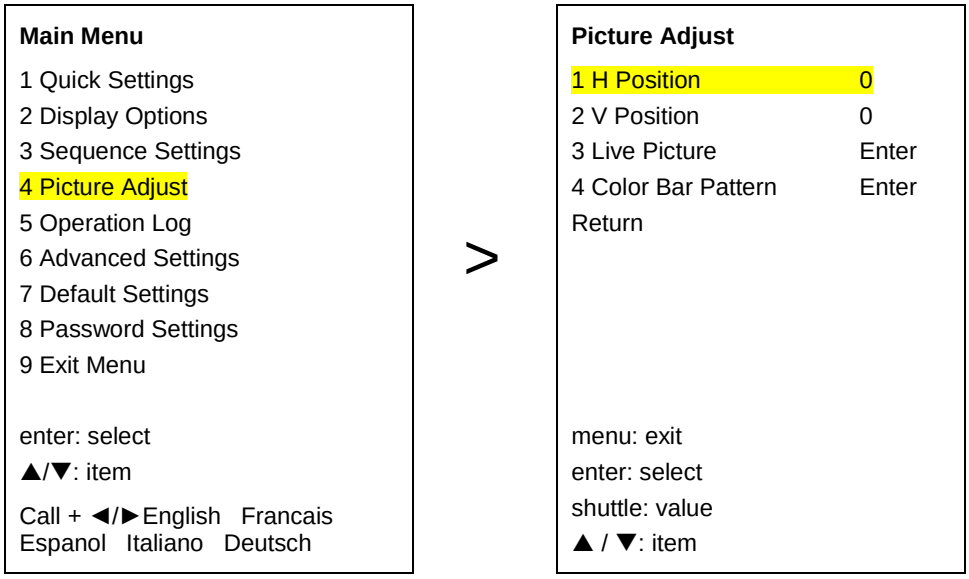
Set the call monitor's sequence mode, with the preferred dwell time for each channel.

Return

Choose this item and press the ENTER button to go back to the previous page.

Adjusting Pictures

This page enables you to position your images the way you desire.



1. H Position

Select to place the position of an image horizontally within the display monitor. Use the shuttle ring to move image right or left.

2. V Position

Select to place the position of an image vertically within the display monitor. Use the shuttle ring to move the image up or down.

3. Live Picture

Select to change or adjust the Noise Filter function, and the Bright, Contrast, Color, and Hue properties of the images in each channel.

4. Color Bar Pattern

Press the ENTER button to display the color bar pattern, and press the MENU button to go back to the previous page.

Return

Go back to the previous page.

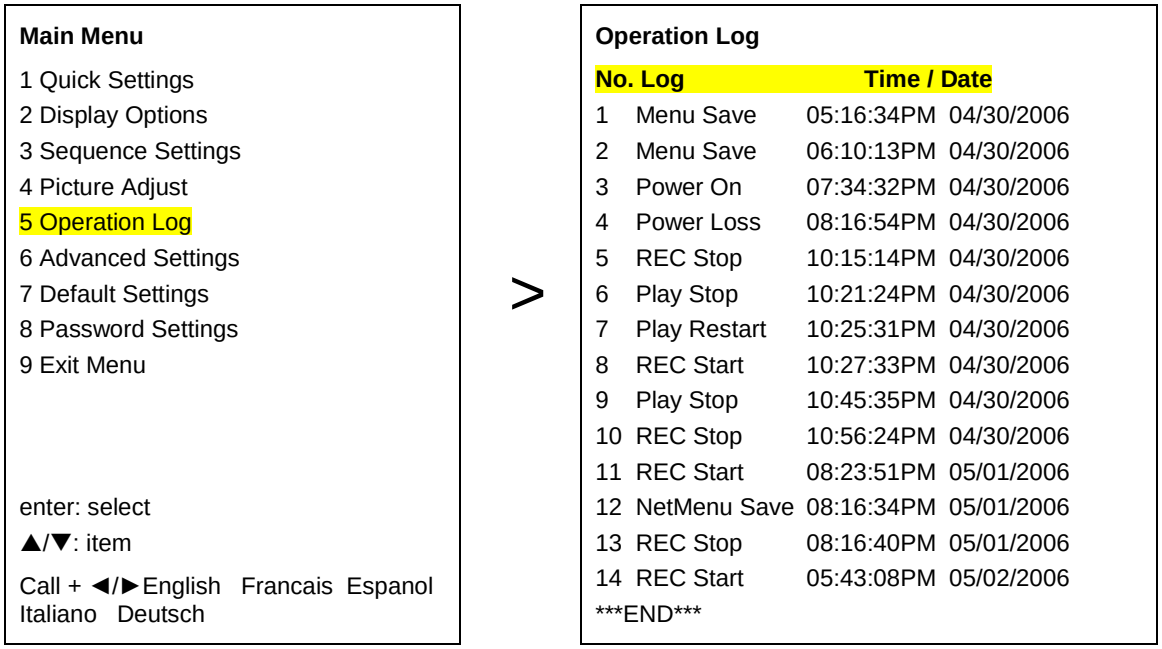
Operation Log

This page displays the contents of the operation log for you.

Items noted in the operation log include: accessing the saving menu, switching power on or off, power loss, stopping a recording, stopping or starting the play function, starting a recording, setting the alarm, and signaling a hard disk full.

Note

The log keeps a history of EDVR operation on a revolving basis because of its limit of 4000 entries. When the log is full, the newly registered record of an operation will replace the existing records starting with the oldest entry first.



Advanced Settings

This page includes multiple special functions.

Main Menu

1 Quick Settings
2 Display Options
3 Sequence Settings
4 Picture Adjust
5 Operation Log
6 Advanced Settings
7 Default Settings
8 Password Settings
9 Exit Menu

enter: select
▲/▼: item
Call + ◄/►English Francais Espanol Italiano Deutsch

>

Advanced Settings

1 Alarm Settings	Enter
2 Record Settings	Enter
3 Motion Settings	Enter
4 Camera Covert	Enter
5 Operation Locks	Enter
6 Communication	Enter
7 Disk Setup	Enter
8 Schedule	Enter
9 Dome Settings	Enter

Return

menu: exit
enter: select
▲/▼: item

Alarm Settings

This page enables you to set all the various alarm-related functions. The device will record as long as the alarm interval is active.

Advanced Settings

1 Alarm Settings	Enter
2 Record Settings	Enter
3 Motion Settings	Enter
4 Camera Covert	Enter
5 Operation Locks	Enter
6 Communication	Enter
7 Disk Setup	Enter
8 Schedule	Enter
9 Dome Settings	Enter

Return

menu: exit
enter: select
▲/▼: item

>

Alarm Settings

1 Alarm Duration	30 SEC
2 Disk Full Alert	On
3 Pre-Alarm	Off
4 Alarm Record Rate	60 F/S
5 Alarm Record Mode	Enter
6 Alarm Record Quality	Enter
7 Sensor Type	Enter
8 Alarm Input Link	Enter
9 Alarm Out Link	Enter

Return

menu: exit
enter: select
shuttle: value
▲ / ▼: item

1. Alarm Duration

Set the desired time period. The options range from Transparent to Nonstop, from one second to 60 minutes.

Note

The time frame must be entered either in seconds or in minutes but not in both.

2. Disk - Full Alert

This signals a disk is fully recorded. The options are On and Off.

On: Enable the function.

Off: Disable the function.

3. Pre-alarm

This option determines that images prior to an alarm will be recorded in the hard disk drive. When an alarm is triggered the device will record the images prior to the alarm for 10 seconds.

ON: Enable the function.

OFF: Disable the function.

4. Alarm Record Rate

For an NTSC (video output) configuration, the speed can be set from 1 to 60 IPS. For a PAL configuration, the speed can be set from 1 to 50 IPS. When any Camera's alarm happens, the EDVR's Record Rate changes to the Alarm Record Rate. Normally, the Alarm Record Rate's setting value will be greater than the Normal Record Rate's setting value for higher performance demand during alarm. Because the Record Rate in general is an aggregate rate of the system, whenever a rate (regular or alarm rate) is in effect it is shared (not necessarily equally) by all cameras that are being recorded at the time. The only exceptions to this general rule are the extreme cases to be discussed below under Exclusive mode. During alarm, some cameras may achieve higher record rates than others due to a preferential recording sequence determined by the Alarm Record Mode of the alarm cameras with the constraint that 30 IPS for NTSC and 25 IPS for PAL is the limit for any single camera.

Note

F/S and IPS are used interchangeably for images per second as images are not interlaced.

5. Alarm Record Mode

The recorded images of strategically - located cameras must be greater in number when an alarm sensor or motion detection is activated. Each camera is provided with four levels of alarm record Mode: Exclusive, Interleaved, Double, and Normal. The recording priority follows the order as listed with the allowance that Exclusive is absolute. Non-alarmed cameras are at the same priority level of alarmed cameras of Normal Alarm Record Mode. The Alarm Record Mode settings determine the preferential recording sequence of all cameras as guided by the following rules:

Exclusive

If an alarm is activated in a channel of this setting, the EDVR will change the recording rate to the Alarm Record Rate set for this channel and will only record the cameras set to "Exclusive" and are alarmed at the time. No other camera will be recorded. The usual limitation of 30 IPS per channel for NTSC and 25 for PAL applies. The extreme cases alluded to before happen when alarm is triggered in more than one camera of this mode. In this case, each of the "Exclusive" cameras will be recorded at the same rate. The system will attempt to apply the highest "Alarm Record Rate" set among the "Exclusive" alarm cameras, only to be confined by the system total and the usual limit of 30 IPS for NTSC and 25 for PAL. The end result is a record rate equaling the highest "Alarm Record Rate" set among the "Exclusive" alarm cameras, 60 divided by the number of "Exclusive" alarm cameras, or the usual limit (30 for NTSC and 25 for PAL), whichever is the lowest.

Example

There are three "Exclusive" cameras in alarm. If the Alarm Record Rate is set to 60 IPS then each camera will receive 20 IPS. This is because the total number of IPS available is limited at 60 IPS. For the same reason, if the Alarm Record Rate is set to 40 IPS each will still be getting 20 IPS. However, if the Alarm Record Rate is set to 15 IPS, then each will receive 15 IPS, because the total number of IPS desired is less than 60 IPS.

From the example above we can see the deviation from the general rule that the record rate is an aggregate rate. In the first case, the record rate happens to be the aggregate rate of all three cameras being recorded.

In the last case, instead of being the aggregate rate, the record rate is actually the rate applicable to every camera being recorded. In the second case, the record rate is neither the aggregate nor the rate for each camera.

Interleaved

If an alarm is activated in a camera of this setting, one image from this camera will be recorded alternately with one image from another camera. Thus this channel will record more images than all other channels. If alarms occur simultaneously in several cameras of this setting, images of this whole group will be recorded alternately with one image from another camera outside this group. If alarms also occur in channels set to lower priority Alarm Record Mode(s), the ones at Interleave Mode will be recorded before those at lower priority modes.

Double

If an alarm is activated in a camera of this setting, this camera will be recorded at twice the rate of the each of the non-alarm cameras and alarmed cameras set to Normal Alarm Record Mode. The latter two groups form the lowest priority channels. If alarms occur simultaneously in more than one cameras of the Double setting, each of these cameras will achieve twice the rate of each of the cameras in the lowest priority channels.

Normal

If an alarm is activated in a camera of this setting, the recording rate changes to a rate allowed by the applicable aggregate rate at the time, or the Alarm Record Rate, after the allotment to higher priority channels. Cameras of this setting will achieve the same recording rate as the non-alarm cameras.

6. Alarm Record Quality

Similarly enter and set each channel to record an alarm at image qualities ranging from Best, High, Standard, and Basic.

Compression ratio				
Quality	Best	High	Standard	Basic
Image Size	38KB ~ 42KB	26KB ~ 30KB	14KB ~ 18KB	8KB ~ 14KB

7. Sensor Type

The alarm input in each channel can be set to a Sensitivity of from 0.1 to 0.8 seconds.

8. Alarm Input Link

Enter and set each channel to activate (On) or deactivate (Off) the three modes of Sensor, V (Video)-Loss, and Active.

Sensor: An alarm is triggered when the sensor is touched.

V-Loss: An alarm occurs when video is lost.

Active: Alarms which are activated while the motion detection function is operating.

9. Alarm Out Link

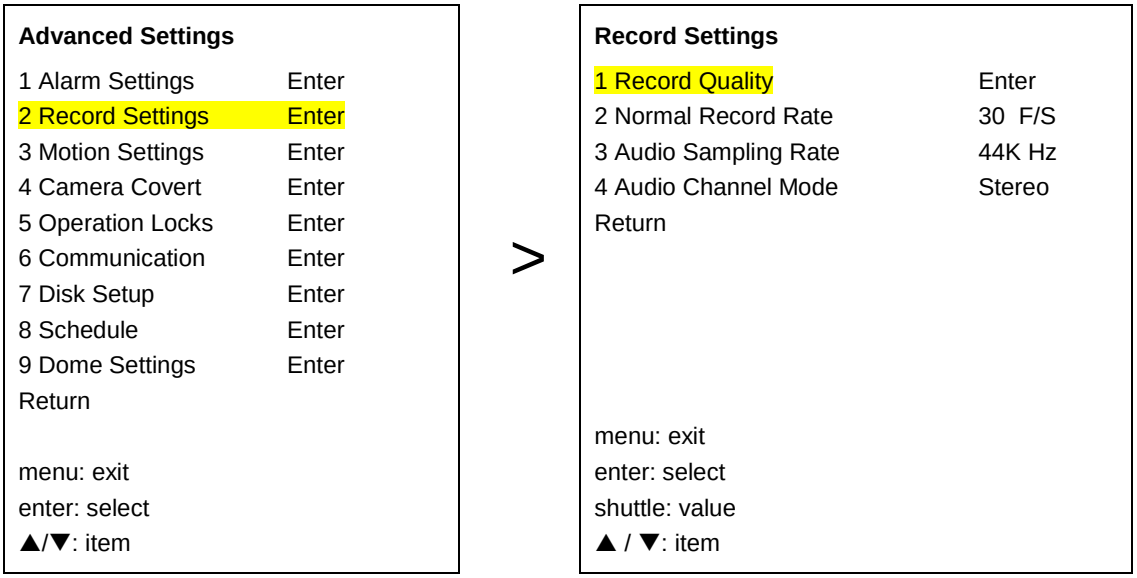
Enter and activate (Yes) or deactivate (No) the three alarm output modes of Sensor, V-Loss, and Active for the following: Alarm Out 1, 2, and 3; Buzzer; Main and Call Displays; Start Recording; and Call Full Screen.

Return

Go back to the previous page.

Record Settings

This page enables you to set the recording rate and recording quality, and enables you to set the audio sampling rate and the channel mode.



1. Record Quality

You can enter and set each channel's record quality at 4 different levels of recording images from Best, High, Standard, and Basic.

2. Normal Record Rate

The rate range is 1 to 60 F/S for NTSC and 1 to 50 F/S for PAL (F/S is fields per sec, same as images per sec or IPS as images are not interlaced).

3. Audio Sample Rate

This item has four options: 44K Hz, 22K Hz, 8K Hz, and Disable.

4. Audio Channel Mode

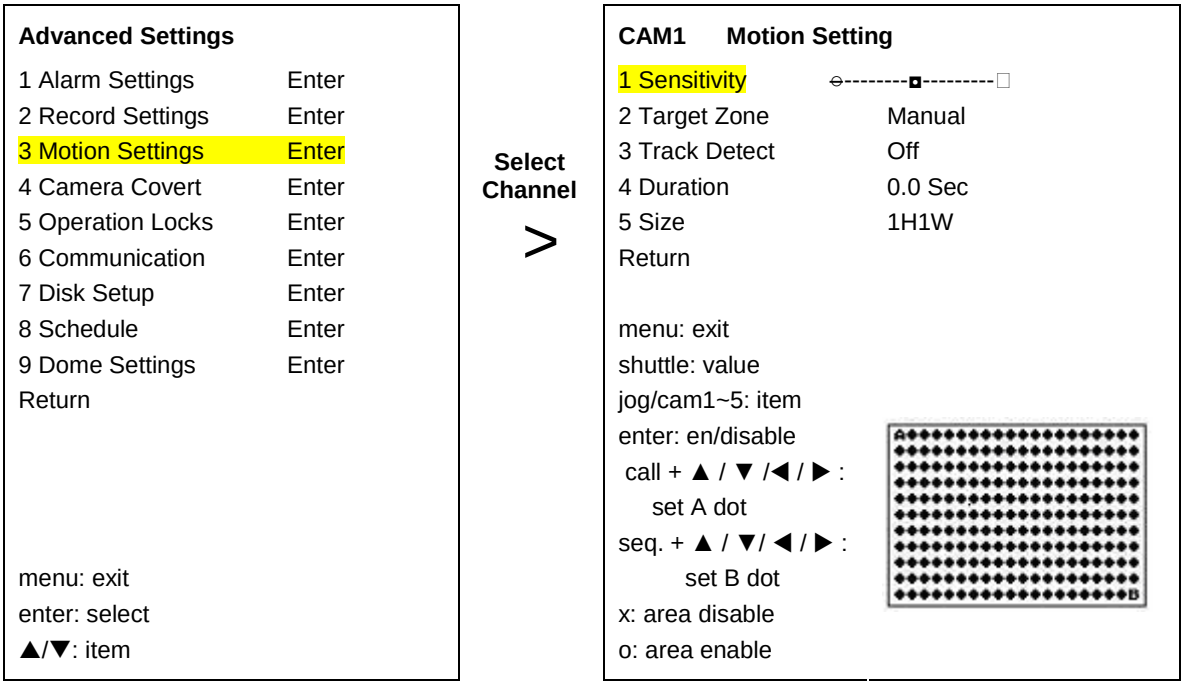
The options here are Stereo (two channels with the same input), and Left Input and Right Input (two channels which work separately).

Return

Go back to the previous page.

Motion Settings

Select to set the motion detection area of each channel.



1. Sensitivity

Control the sensitivity of the motion detection function. Use the shuttle ring to move the sensitivity bar to high (+) or low (-).

2. Target Zone

You need to set up individual channel's target zone if motion detection is desired only in part of the viewing area, represented by the 20Wx11H (220) points on the lower right quadrant of the screen. During (and after) the point selection process, the effective points are marked "o" and the ineffective points "x". First use the shuttle to select Manual or Auto setting mode. Then push the Enter button to begin the point marking session. Notice all points will be marked "x" at the start.

MANUAL: The user can use the manual way to set the target area. Use the CALL button + ⮝, ⮟, ⮜, or ⮞ button to mark the starting point A, and the SEQ. (Sequence) button + ⮝, ⮟, ⮜, or ⮞ button to mark the ending point B.

AUTO: The user must move in front of the cameras, so that the EDVR can detect the motion and fix that area as the motion area automatically. The area will be the target zone.

Once you are satisfied with the zone selection, push the Enter button again to leave the session.

3. Detect Track

Use the shuttle to choose the Off, Up, Down, Left, or Right direction of the detection function.

4. Duration

Choose a particular duration period to set off an alarm. The range is from 0.0 to 5.0 seconds.

For example, if you choose 0.0 second, and the EDVR will begin detecting immediately once the motion is started. If you choose 5.0 seconds, then the EDVR will start detecting when the motion is continued for 5 seconds.

5. Size

Determines the size of the targets that you will detect, ranging from 1H1W to 9H9W.

H indicates height and W indicates width. If you select a relatively large height or width, the EDVR will not be triggered by a very small object.

Return

Go back to the previous page.

Set Up Basic Motion Detection Recording

You need to first configure the alarm settings to activate the alarms. Do not configure the motion settings until you are comfortable with all of the other parameters in these settings. You can set up motion detection without modifying the other motion settings.

Turn on Motion mode in Alarm Input Link

1. Press the MENU button to enter the Main Menu.
2. Select item 6 Advanced Settings and press the ENTER button.
3. Select item 1 Alarm Settings and press the ENTER button.
4. Select item 8 Alarm Input and press the ENTER button.
5. Select the channel for motion detection, press the Right (➤) button twice to Motion column, and set the mode to On using the shuttle ring.
6. Repeat the previous steps for each of the channels that you want to activate with motion detection.
7. Press the MENU button to return to the Alarm Settings menu.

Turn on Start Record mode in Alarm Out Link

1. Select item 9 Alarm Out Link and press the ENTER button.
2. Select item 7 Start Record, press the Right (➤) button twice to go to the Motion column, and set the mode to Yes with the shuttle ring.

Save settings to complete this process

1. Press the MENU button four times to go to the Main Menu. The cursor should be at the menu item, Exit Menu.
2. Press the ENTER button to exit.
3. Press ENTER again to save the changes.

Set Up Advanced Motion Detection Recording

Adjust Target Zone for limited motion detection area

1. Press the MENU button to enter Main Menu.
2. Select item 6 Advanced Settings and press the ENTER button.
3. Select item 3 Motion Settings and press the ENTER button.
4. Select the channel to set and press the ENTER button. You should see a rectangle in the lower right corner marked with dots. Dots indicate that the area is enabled for motion detection.
5. While pressing the CALL button, press the Left/Right (➤, ➤) buttons to control cursor A.
6. While pressing the SEQ button, press the Left/Right (➤, ➤) buttons to control cursor B.
7. While pressing the CALL button, press the Up/Down (➤, ➤) buttons to control cursor A.
8. While pressing the SEQ button, press the Up/Down (➤, ➤) buttons to control cursor B.

9. Shrink the rectangle to cover the area you want to enable or disable for motion detection.
10. Press the ENTER button to toggle the dots to x's. The area in the rectangle is now disabled.
11. Repeat the previous steps for each area you want to enable/disable.

Notes

- Each press of the ENTER button will cycle each area through three modes: enable, disable, toggle. (All enabled sub-areas will be disabled and disabled sub-areas will become enabled.)
- Press the MENU button, then ENTER to view what has been set.
- This procedure can be applied to each dot if needed.

Target Zone

The Manual setting allows you to set up each area as described in the preceding steps.

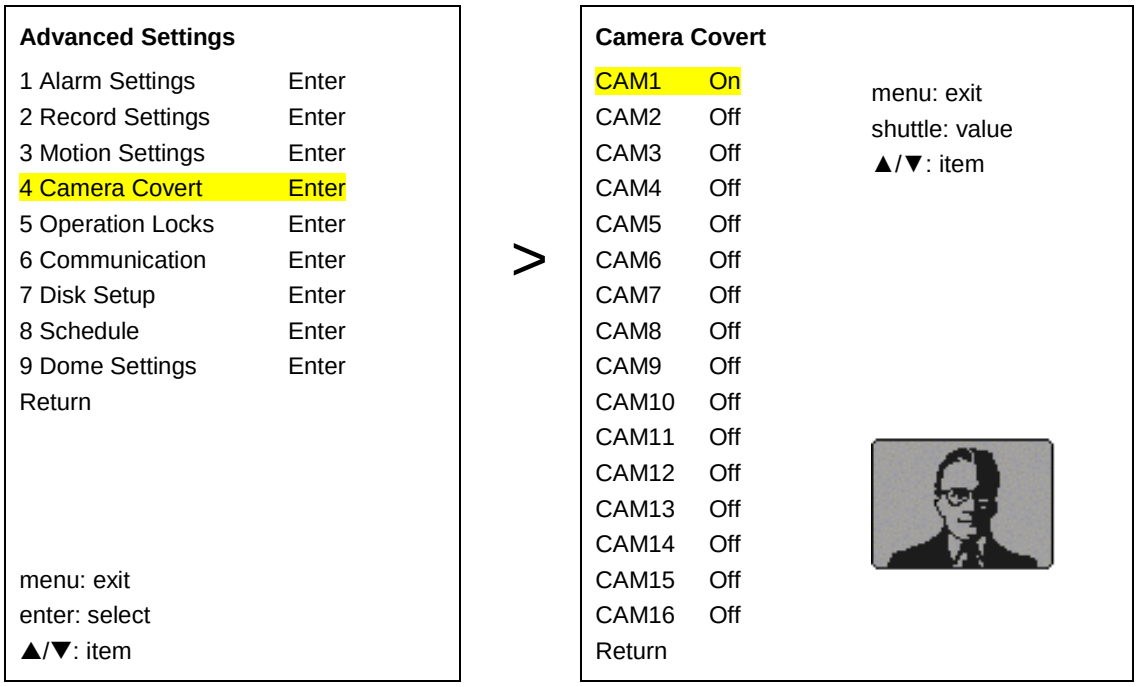
The Automatic setting would allow the system to detect motion and enable the detected motion area. To become familiar with this setting (while viewing this menu), place a camera next to the EDVR. Disable the whole area, and then move your hand in front of the camera. All detected motion will enable the dots.

Track Detect

Use the shuttle ring to adjust values to Up, Down, Left, or Right to indicate which direction of motion you want to track. For example, in a grocery store, if you want to start recording when someone comes in but not record his exit, set Track Detect to Up if the camera is facing the door which is on the top of the screen.

Covert Camera

Enter the following menu and set each channel (camera) to On for hidden or deactivate to Off for exposed recording, respectively.

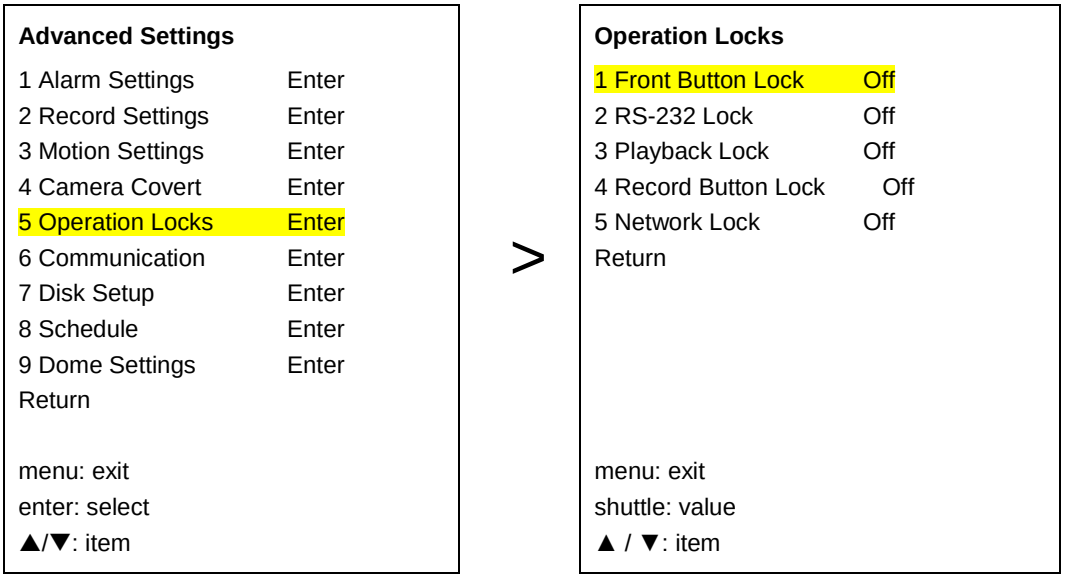


Note

For the Camera Covert menu: Items CAM5 through CAM9 are for the 9CH and 16CH EDVRs only, and items CAM10 through CAM16 are only for the 16CH EDVR.

Operation Locks

You can configure five types of locks as described in the following.



1. Front Button Lock

Select On to lock, select Off to deactivate the lock.

2. RS-232 Lock

Turn On to lock and OFF to unlock.

3. Playback Lock

Turn ON to lock and Off to unlock entry to the various playback functions.

4. Record Button Lock

Turn On to lock and Off to unlock.

5. Network Lock

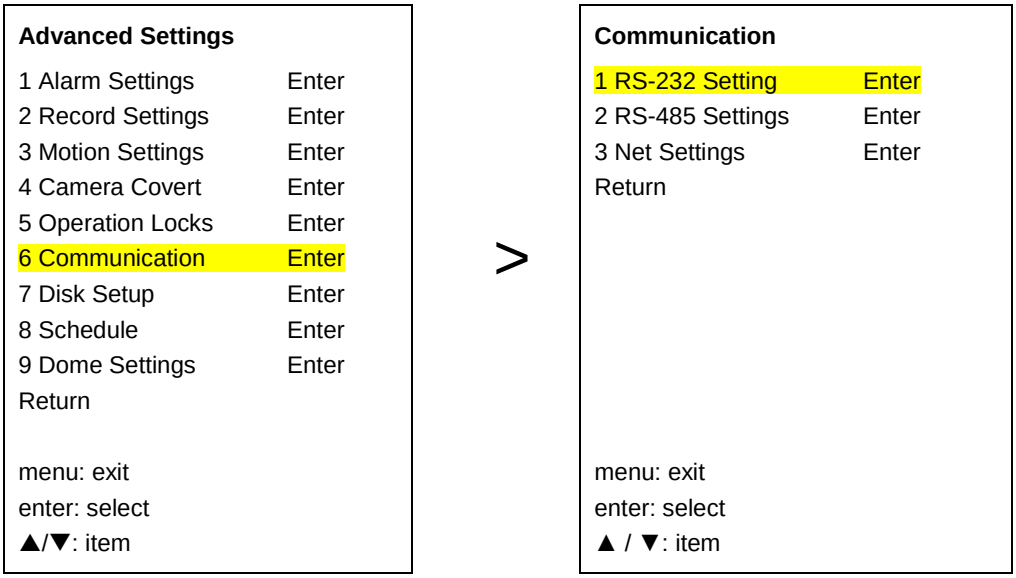
Turn On to lock and Off to unlock access to the Ethernet communication port.

Return

Go back to the previous page.

Communication

From the following menu, you can configure the three types of communication port settings: RS-232, RS-485, and network.



1. RS-232 Setting

You have the option of using an ID code (any number between 0 and 9999) or a Baud rate (at 8 different levels: 1200, 2400, 4800, 9600, 19200, 38400, 57600, or 115200).

2. RS-485 Settings

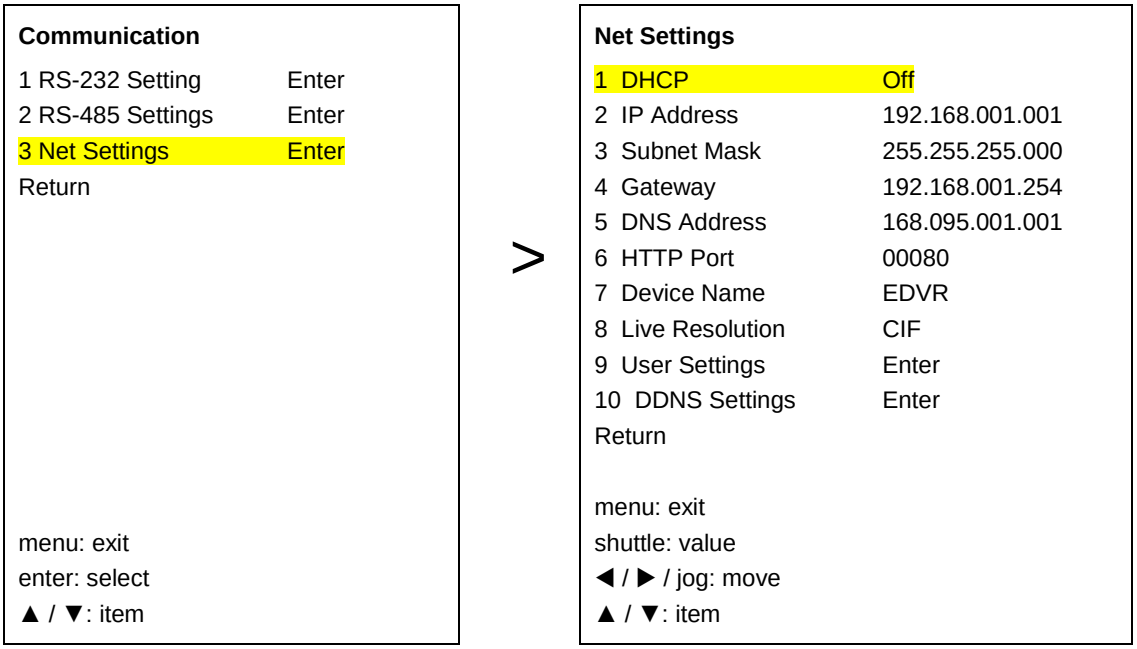
The options are:

- ID Code: Use any number between 0 and 9999
- Baud Rate: At the rates of 1200, 2400, 4800, 9600, 19200, 38400, 57600, or 115200
- Master Clock: Turn On or Off
- Return: Go back to the previous page

3. Net Settings

This option is used to configure the Ethernet communication settings. These settings are required when connecting the EDVR to a network (net).

Note: You may need to consult a qualified MIS professional to configure this setting.



1. DHCP

Set On to enable, or Off to disable the DHCP communication function. If provided with access to a DHCP server, the EDVR can obtain an IP address automatically when the DHCP value is set to On.

2. IP Address

When the Net Settings menu item 1 DHCP is set to Off, the IP address may be manually edited.

3. Subnet Mask

When the Net Settings menu item 1 DHCP is set to Off, the IP mask may be manually edited.

4. Gateway

When the Net Settings menu item 1 DHCP is set to Off, the gateway may be manually edited.

5. DNS Address

The DNS IP address may be manually edited.

6. HTTP Port

The HTTP PORT allows users to set the HTTP port number from 1 to 65535.

Notes

- Items 2-5 are used to configure the Ethernet communication settings. Configuring these settings is required to make a network connection. Consult a qualified MIS professional to configure them.
- When only one EDVR is connected to a computer or LAN, you can freely assign an IP address to the EDVR. For example, there is a range of EDVR IP addresses from 192.168.1.1 to 192.168.1.255, and you can pick any one for your use. It is not necessary to set the Mask and Gateway values. You can leave the settings with the default values.

- When an EDVR is connected to a WAN, you must acquire a unique, permanent IP address and correctly configure the Mask and Gateway values according to your network architecture. If you have any questions regarding those settings, contact a qualified MIS professional or your ISP.
- When connecting to a network, each connected EDVR must be assigned a unique IP that must be in the same class type as your network address. IP addresses are written as four sets of numbers separated by periods; for example, 192.168.1.1 Therefore, if the connected network is identified as Class C, for example, the first three sets of numbers of the EDVR IP address must be the same as the network address. If the connected network is identified as Class B, the first two sets of numbers of the EDVR IP address must be the same as the network address. If you have any questions regarding these settings, contact a qualified MIS professional or your ISP.

7. Device Name

The default device name is **EDVR**.

8. Live Resolution

When accessing the EDVR using a Web browser, such as Microsoft Internet Explorer on your PC, this setting allows you to select one of 3 modes for live images from your PC monitor:

Half D1: The maximum video capture resolution is 720 x 240 pixels (NTSC) or 720 x 288 pixels (PAL).

CIF: The maximum video capture resolution of NTSC is 352 x 240 pixels, and the resolution of PAL is 352 x 288 pixels.

QCIF: Quarter CIF. The maximum video capture resolution of NTSC is 160 x 120 pixels, and the resolution of PAL is 160 x 144 pixels.

9. User Settings

When accessing the EDVR using a Web browser such as Microsoft Internet Explorer, users have to login by entering a user (viewer) name and password. A user who accesses the EDVR with the admin name and password has complete privileges to change all settings of the EDVR (please refer to section 7. for more details). However, a user who accesses with just the viewer name and password has only the limited power to view.

Admin Name: The default admin name is **ADMIN**.

Admin Password: The default admin password is **9999**.

Viewer Name: The default viewer (user) name is **VIEWER**.

Viewer Password: The default viewer (user) name is **0000**.

Note

When accessing the EDVR using a Web browser such as Microsoft Internet Explorer, users have to log in by entering the user name and password. The user who accesses with the admin name and password has the full power to even change the settings of the EDVR. However, a user who accesses the EDVR with a viewer name and password has only the limited power to view. Refer to the section ”Using a Web Browser”, page 95, for more details.

10. DDNS Settings

DDNS (Dynamic Domain Name System) is a function that is provided by an American company. Refer to www.dyndns.com for further information.

DDNS Mode: Activate **On** or **Off**. This option enables or disables the DDNS function.

Host Name: The default host name is **EDVR.DYNDNS.ORG**

User Name: The default user name is **guest**.

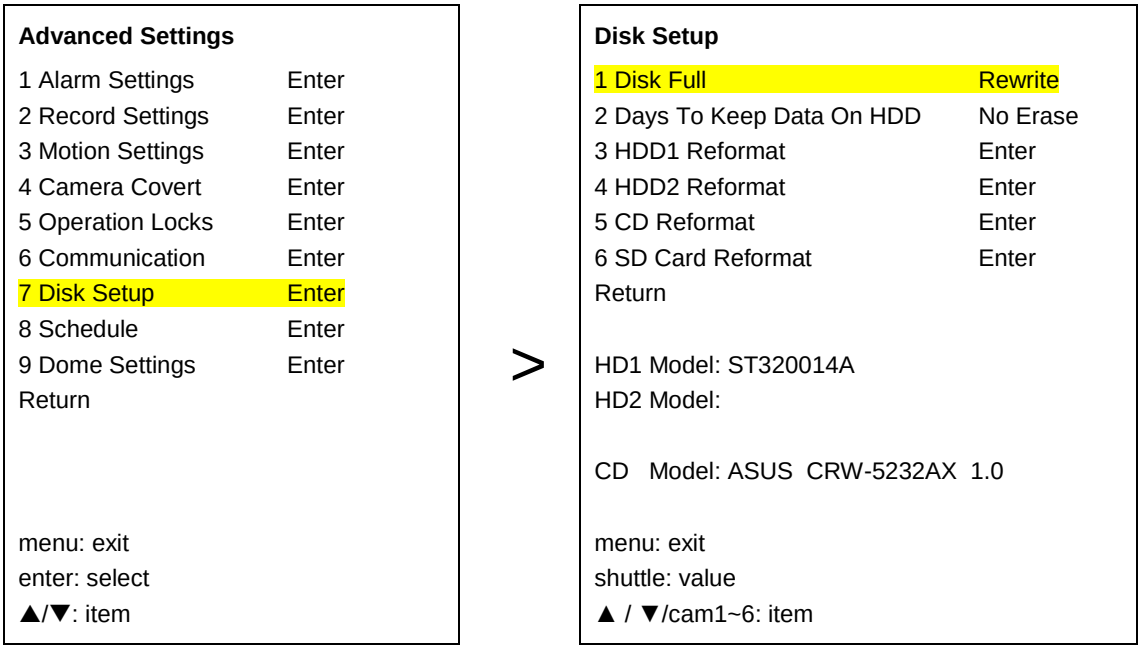
Password: The default password is **0000**.

Return

Go back to the previous page.

Disk Setup

Enter the Disk Setup menu to configure the following settings.



1. Disk Full

Determines the way the EDVR utilizes its storage media (hard disks) in case of a full disk.

Rewrite: When the hard disk is full, the device continues recording by displacing the old data (rewriting the oldest data first).

Stop: When the hard disk is full, the device will stop recording.

2. Days to Keep Data in HDD

Select either Days (any number between 07 and 99 DAYS) or No Erase.

3. HDD1 Reformat

Allows you to clear out all the data in HDD1. You will be required to enter the pre-set password before proceeding with clearing out the data. Enter the default password of **9999**.

4. HDD2 Reformat

Allows you to clear out all the data in HDD2. You will be required to enter the pre-set password before proceeding with clearing out the data. Enter the default password of **9999**.

5. CD Reformat

Allows you to erase your CD disk if it is rewritable.

6. SD Card Reformat

Allows you to erase your SD card. You will be required to verify your selection before proceeding. Select and enter the SD Card Format menu to erase all data on the SD card (Yes) or alternatively, not erase all data (No).

Return

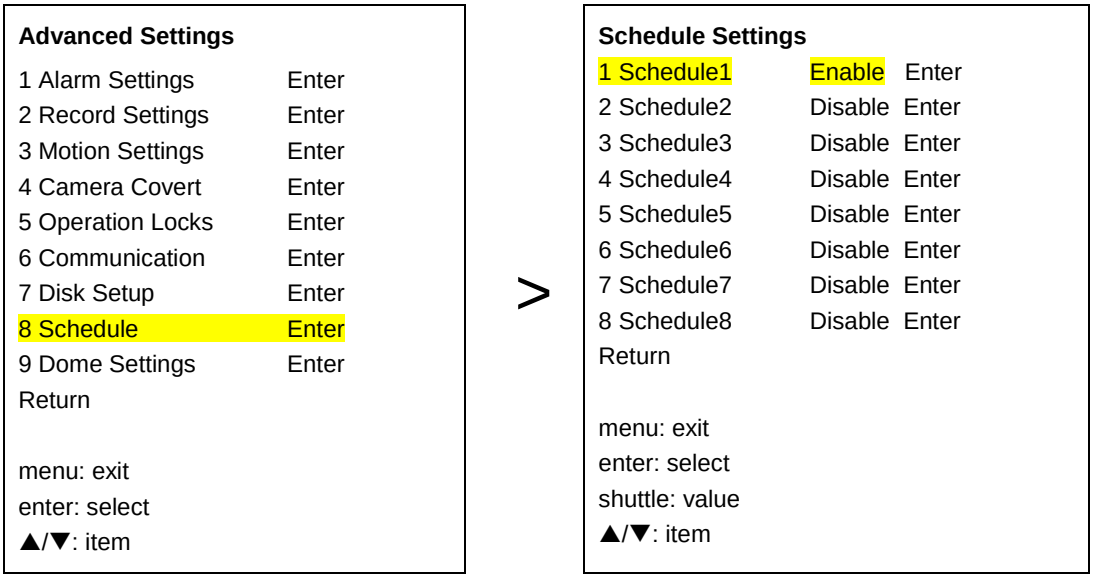
Go back to the previous page.

Schedule

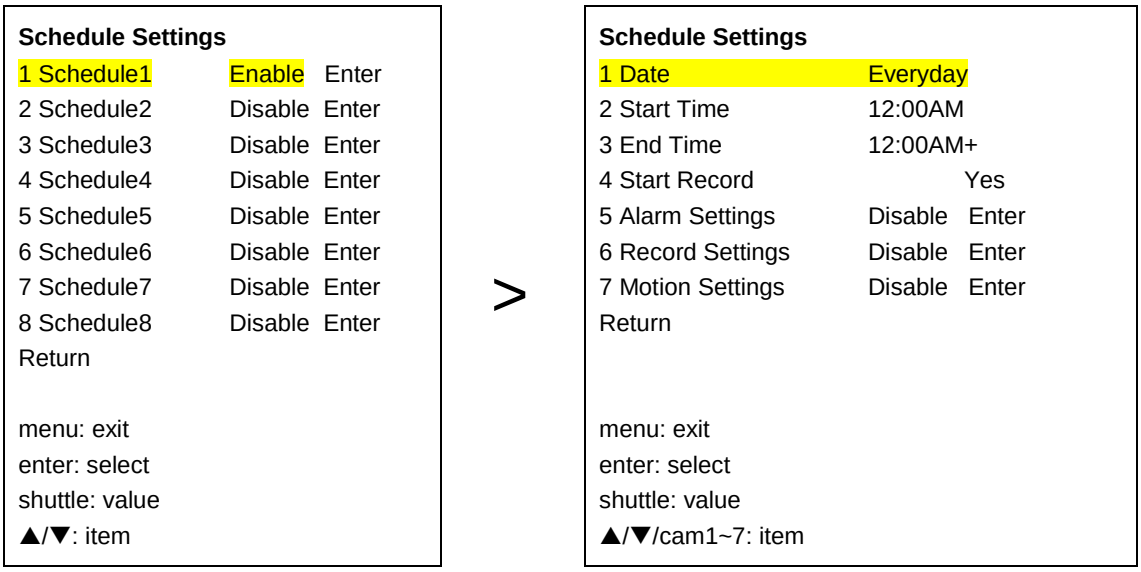
Enter the Schedule Settings menu to configure up to 8 schedules. A schedule can change the recording settings as well as the alarm settings at designated times. Users can set alarm, record, and motion preferences to override normal alarm, record, and motion settings during a scheduled record period. Use the shuttle ring to choose Enable or Disable for each schedule.

Note

If there are any conflicts between the schedules, a schedule with a smaller (lower) number has priority over a schedule with a higher (larger) number. For example, if there is a conflict between schedules 1 and 2, the EDVR will use the values in schedule 1.



Enter the Schedule Settings page to adjust the following items:



On the "Schedule Settings" page you have eight schedules, each of which has an identical "Settings" process. You must first activate this by turning "Disable" to "Enable", then choose the corresponding "Enter" and press the ENTER button on the front panel to enter your selected schedule's "Settings" page. The settings page has the same format as all the other schedules, as follows:

1. Date

You can choose a single day, the standard business week (MON-FRI), or everyday.

2. Start Time

The time a schedule commences (begins).

3. End Time

The concluding time of a schedule.

4. Start Record

This function must be activated by "Yes" or deactivated by "No". The recording will run according to the day and time you have chosen.

5. Alarm Settings

Use the shuttle ring to select either Enable to activate or Disable to deactivate this particular schedule's settings.

If you select Disable, then there will be no change in the alarm settings during the scheduled time.

During the scheduled time you can set another alarm setting to override the normal alarm settings. Press the ENTER button to enter the scheduled Alarm Settings page. You can set the various alarm-related functions in this page. Refer to the section "Alarm Settings", page 47, for more details.

6. Record Settings

Use the shuttle ring to select either Enable to activate or Disable to deactivate this particular schedule's settings.

If you select Disable, then during the scheduled time there will be no change in the record settings.

During the scheduled time you can set the schedule record quality and rate to override the normal recording settings. Press the ENTER button to enter the scheduled Record Settings page. You can set the motion detection and other functions. Refer to the section "Record Settings", page 50, for more details.

7. Motion Settings

Use the shuttle ring to select either Enable to activate or Disable to deactivate this particular schedule's settings.

If you select Disable, then during the scheduled time there will be no change in the motion settings.

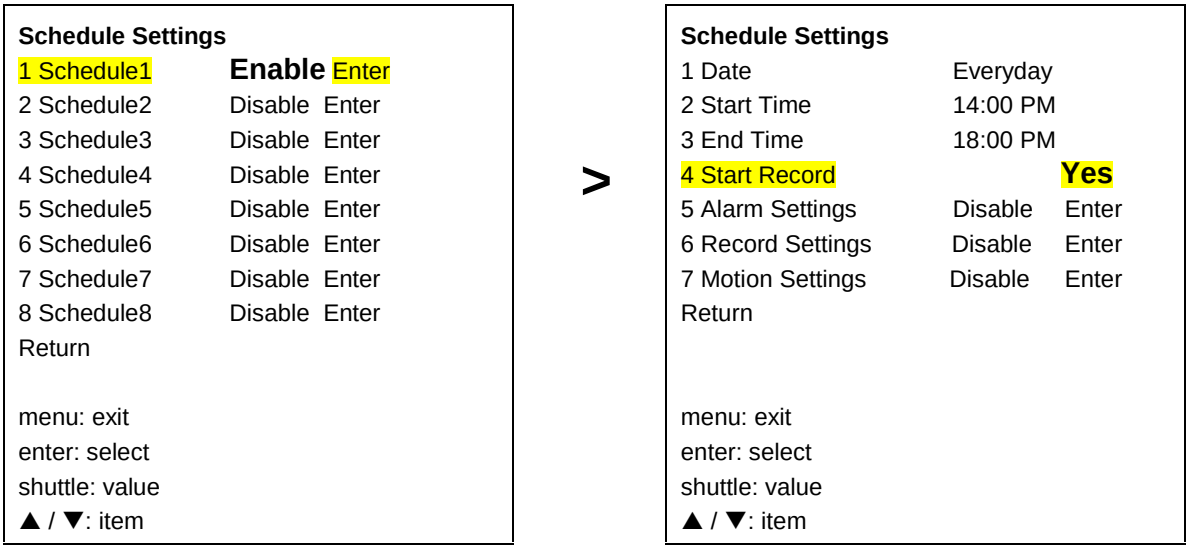
Each and every channel can be set to override the normal motion settings and has a separate scheduled motion detection setting during the scheduled time. Press the ENTER button to enter the scheduled Motion Settings page. Refer to the section "Motion Settings", page 51, for more details.

Return

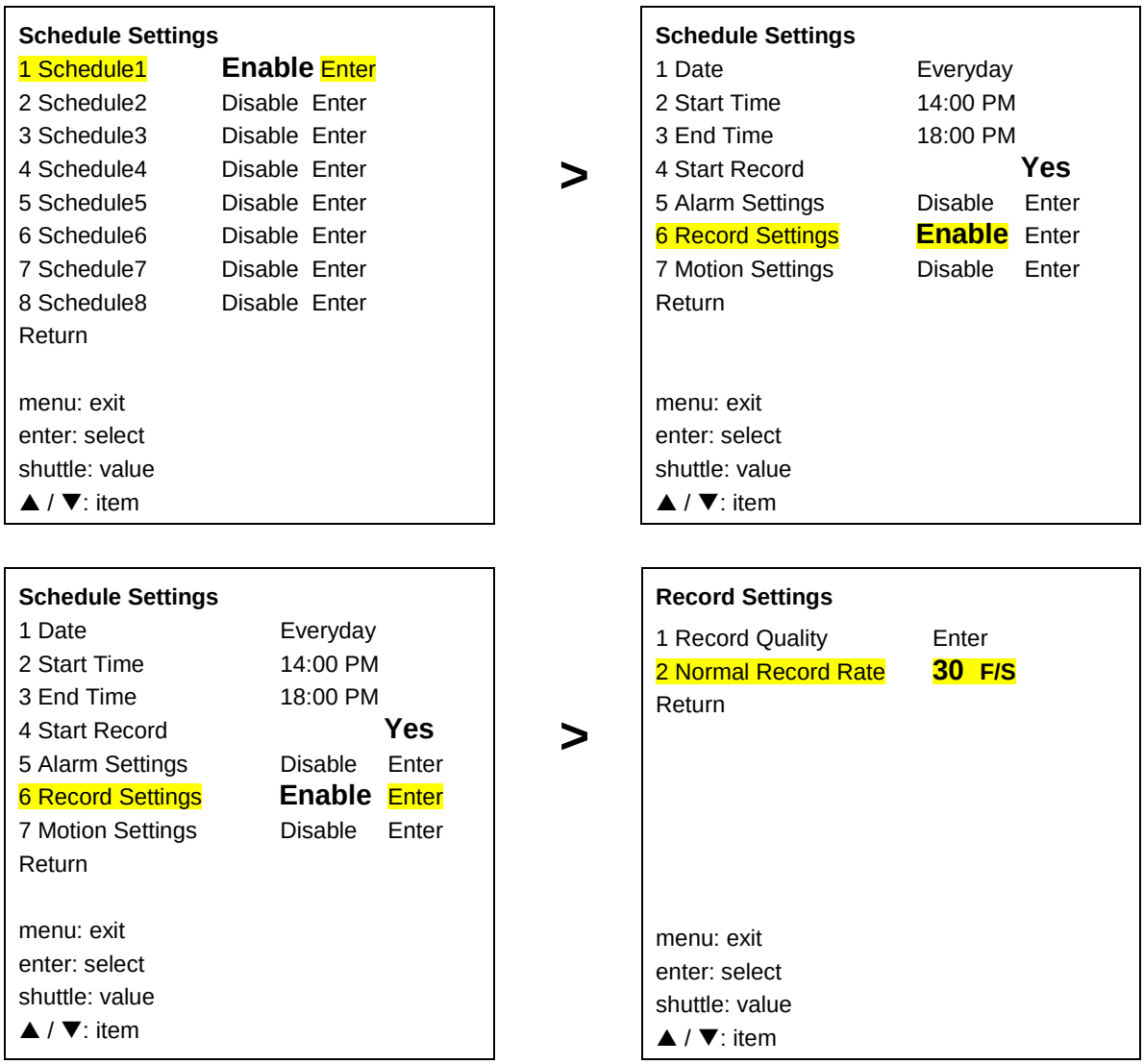
Go back to the previous page.

Schedule Set Up Examples

1. Set up a schedule to start recording using global normal record rate (Main Menu > Quick Settings) immediately after the setup and continue recording through the scheduled period without change of record rate.



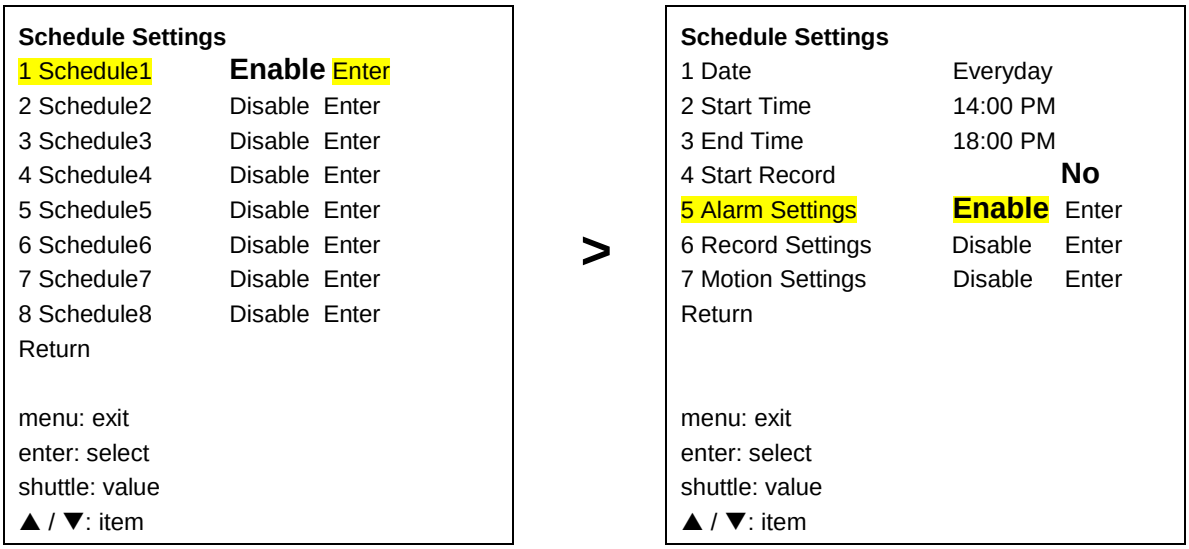
2. Set up a schedule to change the normal record rate to a rate specific to this schedule during the scheduled period.

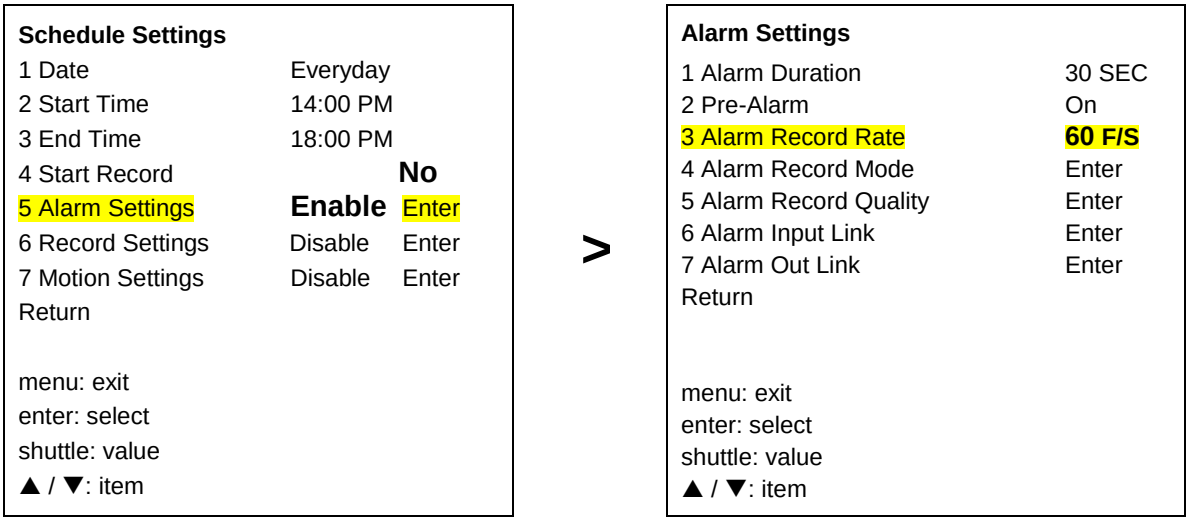


3. Set up a schedule to start recording only during the scheduled time period and when sensor alarms are triggered.

Note

On Alarm Input Link, Sensor and Video Loss are defaulted to On for all cameras so you do not have to change the Alarm Input Link settings. If you have turned any of them Off, then you need to turn them back on if desired. For the turn-on procedure, see example 4 on motion alarm, the Input Link of which is defaulted to Off for all cameras.





Alarm Settings

1 Alarm Duration	30 SEC
2 Pre-Alarm	On
3 Alarm Record Rate	**60 F/S**
4 Alarm Record Mode	Enter
5 Alarm Record Quality	Enter
6 Alarm Input Link	Enter
7 Alarm Out Link	Enter

Return

menu: exit
enter: select
shuttle: value
▲ / ▼: item

>

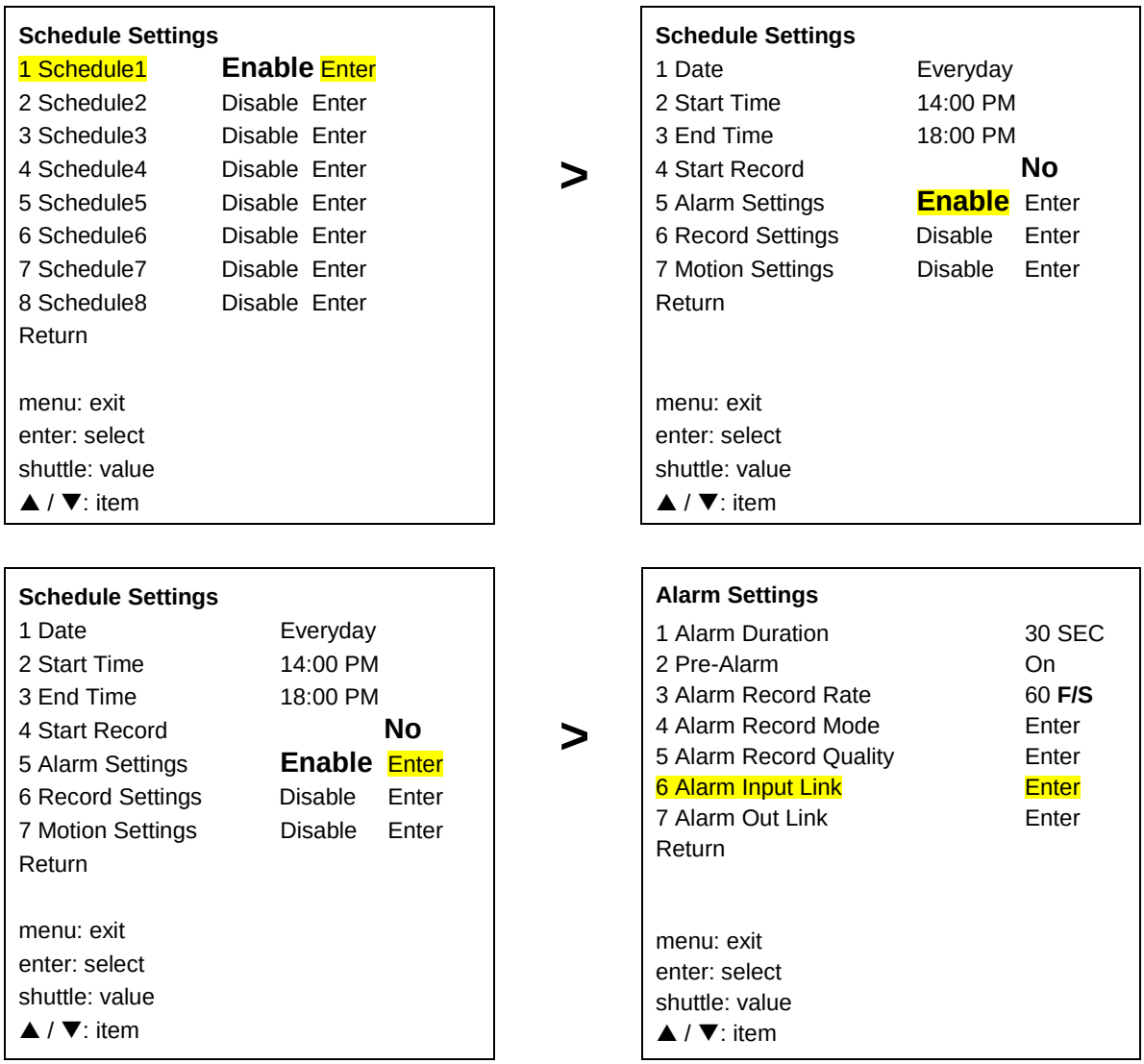
Alarm Out Link

	Sensor	V-Loss	Motion
1 Alarm Out1	Yes	No	No
2 Alarm Out2	No	Yes	No
3 Alarm Out3	No	No	Yes
4 Buzzer	Yes	Yes	Yes
5 Main Display	Yes	Yes	Yes
6 Call Display	Yes	Yes	Yes
7 Start Record	**Yes**	No	No
8 Call Full Screen	No	No	No

Return

menu: exit
shuttle: value
◄ / ►: move
▲ / ▼: item

4. Set up a schedule to only start recording during the scheduled time period and when motion alarms are triggered on CAM1.



Alarm Settings

1 Alarm Duration	30 SEC
2 Pre-Alarm	On
3 Alarm Record Rate	**60 F/S**
4 Alarm Record Mode	Enter
5 Alarm Record Quality	Enter
6 Alarm Input Link	Enter
7 Alarm Out Link	Enter
Return	

menu: exit
enter: select
shuttle: value
▲ / ▼: item

>

Alarm Input Link

	Sensor	V-Loss	Motion	menu: exit
CAM1	On	On	On	shuttle: value
CAM2	On	On	Off	◄ / ►: move
CAM3	On	On	Off	▲ / ▼: item
CAM4	On	On	Off	
CAM5	On	On	Off	
CAM6	On	On	Off	
CAM7	On	On	Off	
CAM8	On	On	Off	
CAM9	On	On	Off	
Return				

Alarm Settings

1 Alarm Duration	30 SEC
2 Pre-Alarm	On
3 Alarm Record Rate	**60 F/S**
4 Alarm Record Mode	Enter
5 Alarm Record Quality	Enter
6 Alarm Input Link	Enter
7 Alarm Out Link	Enter
Return	

menu: exit
enter: select
shuttle: value
▲ / ▼: item

>

Alarm Out Link

	Sensor	V-Loss	Motion
1 Alarm Out1	Yes	No	No
2 Alarm Out2	No	Yes	No
3 Alarm Out3	No	No	Yes
4 Buzzer	Yes	Yes	Yes
5 Main Display	Yes	Yes	Yes
6 Call Display	Yes	Yes	Yes
7 Start Record	No	No	**Yes**
8 Call Full Screen	No	No	No
Return			

menu: exit
shuttle: value
◄ / ►: move
▲ / ▼: item

Schedule Settings

1 Date	Everyday
2 Start Time	14:00 PM
3 End Time	18:00 PM
4 Start Record	**No**
5 Alarm Settings	**Enable** Enter
6 Record Settings	Disable Enter
7 Motion Settings	**Enable** Enter
Return	

menu: exit
enter: select
shuttle: value
▲ / ▼: item

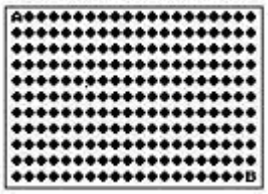
Select Channel

>

Schedule1 CAM1 Motion Setting

1 Sensitivity	⊖--------◘---------⊕
2 Target Zone	Manual
3 Track Detect	Off
4 Duration	0.0 SEC
5 Size	1H1W
Return	

menu: exit
shuttle: value
jog: item
enter: en/disable
call + ▲/▼/◀/▶:
set A dot
seq + ▲/▼/◀/▶:
set B dot
x: area disable
o: area enable



Dome Settings

Select this menu to set a camera's protocol settings. Configure each camera's settings to the camera protocol on that channel.

Advanced Settings

1 Alarm Settings	Enter
2 Record Settings	Enter
3 Motion Settings	Enter
4 Camera Covert	Enter
5 Operation Locks	Enter
6 Communication	Enter
7 Disk Setup	Enter
8 Schedule	Enter
9 Dome Settings	Enter
Return	

menu: exit
enter: select
▲ / ▼: item

>

Dome Settings

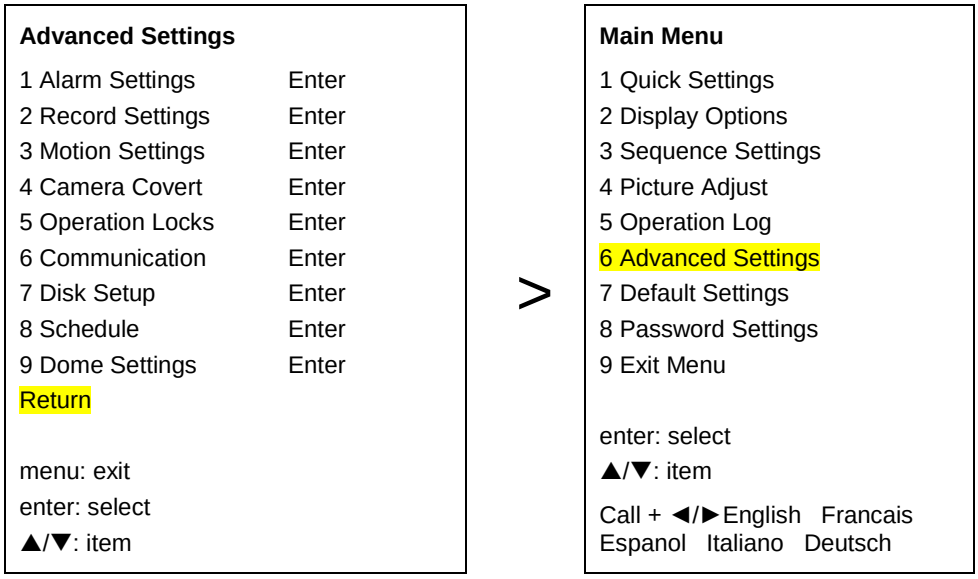
	ID	Protocol	
CAM1	1	AD422	
CAM2	2	AD422	menu: exit
CAM3	3	AD422	shuttle: value
CAM4	1	NONE	▲ / ▼: item
CAM5	1	NONE	
CAM6	1	NONE	
CAM7	1	NONE	
CAM8	1	NONE	
CAM9	1	NONE	
CAM10	1	NONE	
CAM11	1	NONE	
CAM12	1	NONE	
CAM13	1	NONE	
CAM14	1	NONE	
CAM15	1	NONE	
CAM16	1	NONE	
Return			

Note

For the Dome Settings menu: Items CAM5 through CAM9 are for the 9CH and 16CH EDVRs only, and items CAM10 through CAM16 are only for the 16CH EDVR.

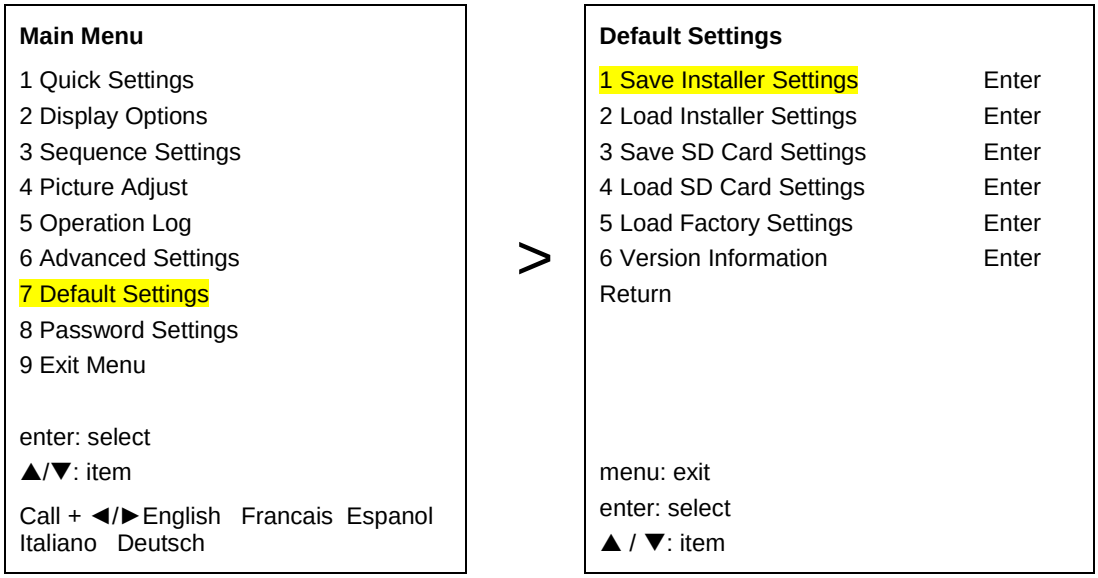
Return

To exit the Advanced Settings page, choose Return and go back to the Main Menu page.



Default Settings

This page enables you to save and reload the default settings and also view your EDVR's version information.



1. Save Installer Settings

Select to save the settings in the buffer of the device.

2. Load Installer Settings

In case someone tampered with or incorrectly set up the system, selecting this item allows you to return to your previously selected settings if the installer settings were saved (as above)

3. Save SD Card Settings

If you wish to quickly set up many EDVR units with the same settings, you can save all of the settings from this EDVR to an SD card (and then insert the SD Card in the other machines; see next item).

4. Load SD Card Settings

This item allows you to load your entire settings to another EDVR from an SD Card (see previous item).

5. Load Factory Settings

This page enables you to reload the factory default settings.

6. Version Information

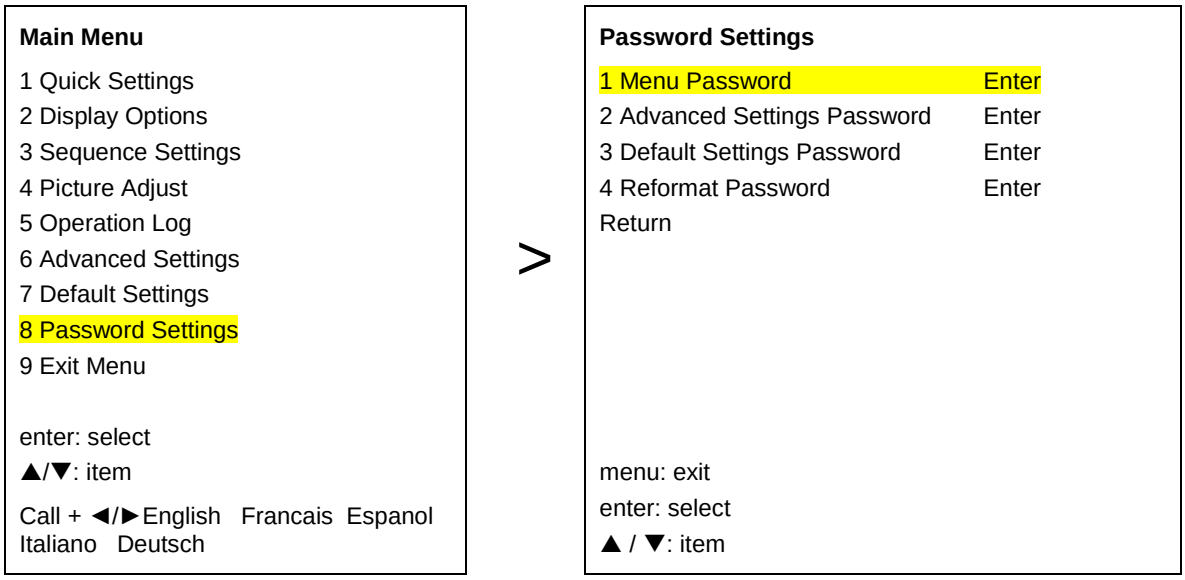
Selecting this item displays the EDVR model number, the system software (firmware) version number, and the system software release date.

Return

Go back to the previous page.

Password Settings

This page enables you to set the password.



1. Menu Password

If you choose to password-protect the Main Menu to block any unauthorized entry, select this menu item.

Enter New Menu Password:

Type in a 4-digit password of your choice.

Re-Enter Menu Password:

Retype your advanced password in order to verify that it was entered correctly.

After you set this password: The next time you enter the Main Menu you will be prompted to enter this password:

Password: _ _ _ _

Type in the correct password to enter the Main Menu.

2. Advanced Settings Password

If you choose to password-protect the Advanced Settings menu, you have to first select (shift the focus to) this item. The screen will display the following message:

Enter New Advanced Password:

Type in the 4-digit password you choose.

Re-Enter the Advanced Password:

Retype your advanced password in order to verify that it was entered correctly.

After you set this password: The next time you enter the Advanced Settings menu, you will be prompted to enter this password:

Password: _ _ _ _

Type in the correct password to enter the Advanced Settings menu.

3. Default Settings Password

If you choose to password-protect the Default Settings menu, shift the focus to this item and press ENTER. The screen shows the following message:

Enter New Default Password:

Type in your selected new default password in a 4-digit number.

Re-enter Default Password:

Retype your default password in order to verify that it was entered correctly.

After you set this password: The next time you enter the Default Settings menu you will be prompted to enter this password:

Password: _ _ _ _

Type in the correct password to enter the Default Settings menu.

4. Reformat Password

If you choose to password-protect the ability to reformat the hard disk, CD, or SD card, select this menu option.

Enter New Reformat Password :

Type in the 4-digit password of your choice.

Re-Enter Reformat Password:

Retype your reformat password in order to verify that it was entered correctly.

After you set this password: The next time you attempt to reformat a hard disk drive, CD, or SD card, you will be prompted to enter this password:

Password: _ _ _ _

Type in the correct password to enable reformatting the selected device.

Return

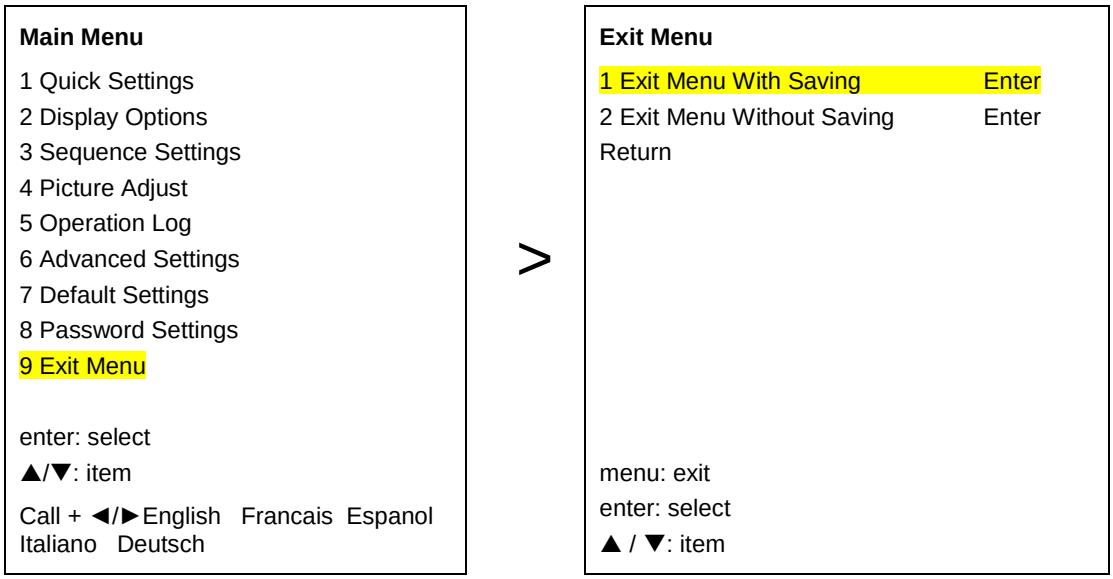
Go back to the previous menu page.

Notes

- After typing and re-typing the password, the message “Password Enter Success” is displayed. Exit the menu with saving.
- If you want to change the password, you must enter the old (default) password, and then type in the new one twice.

Exit Menu

If you wish to exit the menu, focus on this item and enter.



1. Exit Menu with Saving

Save your settings and exit the menu.

Note

Only select this item if you are certain you did not accidentally change any settings. That is, use the MENU button to back out of the menus if you did not make any changes. Selecting the ENTER button from within a menu item can result in unintentionally changing an item's value.

2. Exit without Saving

Select this item and press the ENTER button to exit the menu without saving any settings.

As noted in the preceding description, only select this item when you are certain you did not change a menu value unintentionally.

Return

Go back to the previous page.

EDVR Client Software

Introduction

This version of the EDVR Client uses the Microsoft .NET Framework. The .NET Framework provides a high performance environment to address network programming issues. Therefore, we recommend using the EDVR Client to connect the EDVR over a network, since it is safer, faster, and more stable and reliable than other software. Refer to the following sections for the major features of this software.

The EDVR Client software:

- Can search any number of EDVRs as is necessary
- Can support eight display modes and help you control your preferred screen sizes
- Has an extremely powerful search mode to help you search recorded data for the event / time you want
- Supports your local PC simultaneously with the EDVR backup data

The EDVR Client software can be operated by a selected PC equipped with the following minimum requirements:

1. Intel Pentium III 750 MHz
2. 256 MB RAM
3. Windows 98, NT, ME, 2000, and XP
4. Video card with 4 MB of RAM capable of 24-bit true color display
5. 160 MB free hard disk space for software installation
6. 10-base T network for LAN operation (that is, both the EDVR and PC must be physically connected to the LAN)

TCP/IP Communication Setup

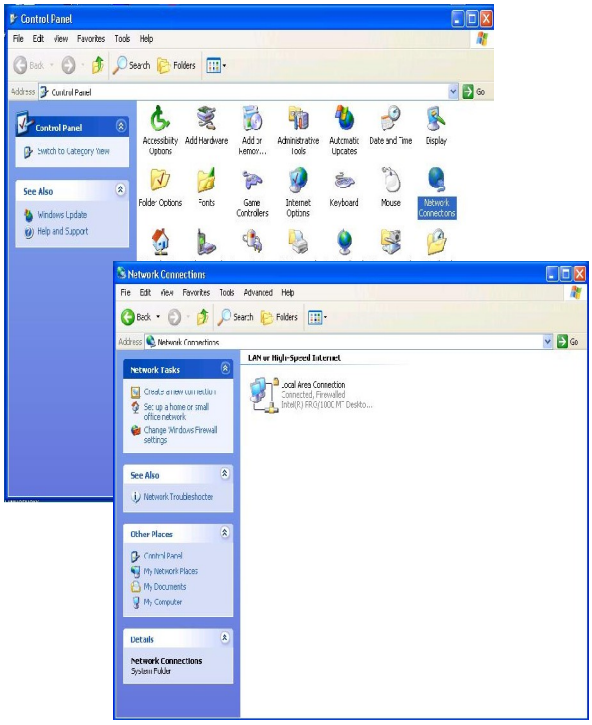
Complete the following steps to install the TCP/IP communication program on your computer. The following procedures assume you are using Microsoft Windows XP with the default menu configuration.

1. Click the **Start** menu from your computer and point to the **Control Panel**.

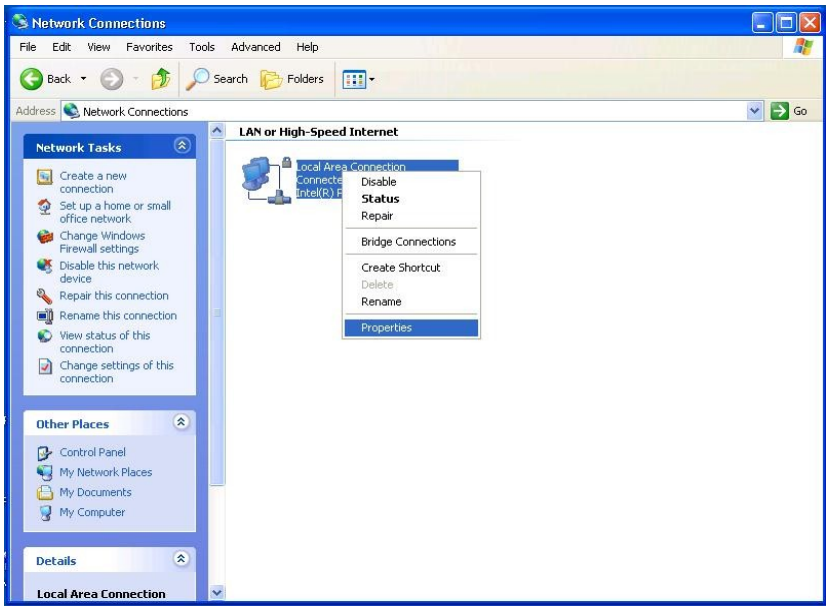
Note

If your PC is configured with the “Classic” Windows Start Menu setting, click the **Start** menu, select **Settings**, and point to the **Control Panel**. If you have otherwise customized your **Start** Menu, your menu structure may not be identical to that described in the following procedures.

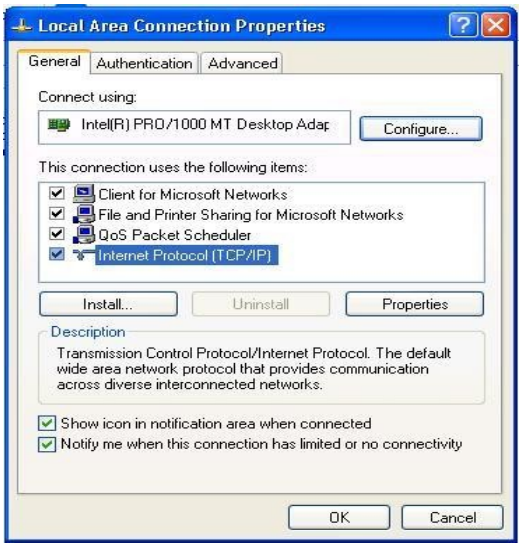
2. Click the **Network Connections** icon twice to enter the **Network Connections** window.



3. Point to the **Local Area Connection** and click the right mouse button. Select **Properties** to enter the **Local Area Connection Properties** settings window.

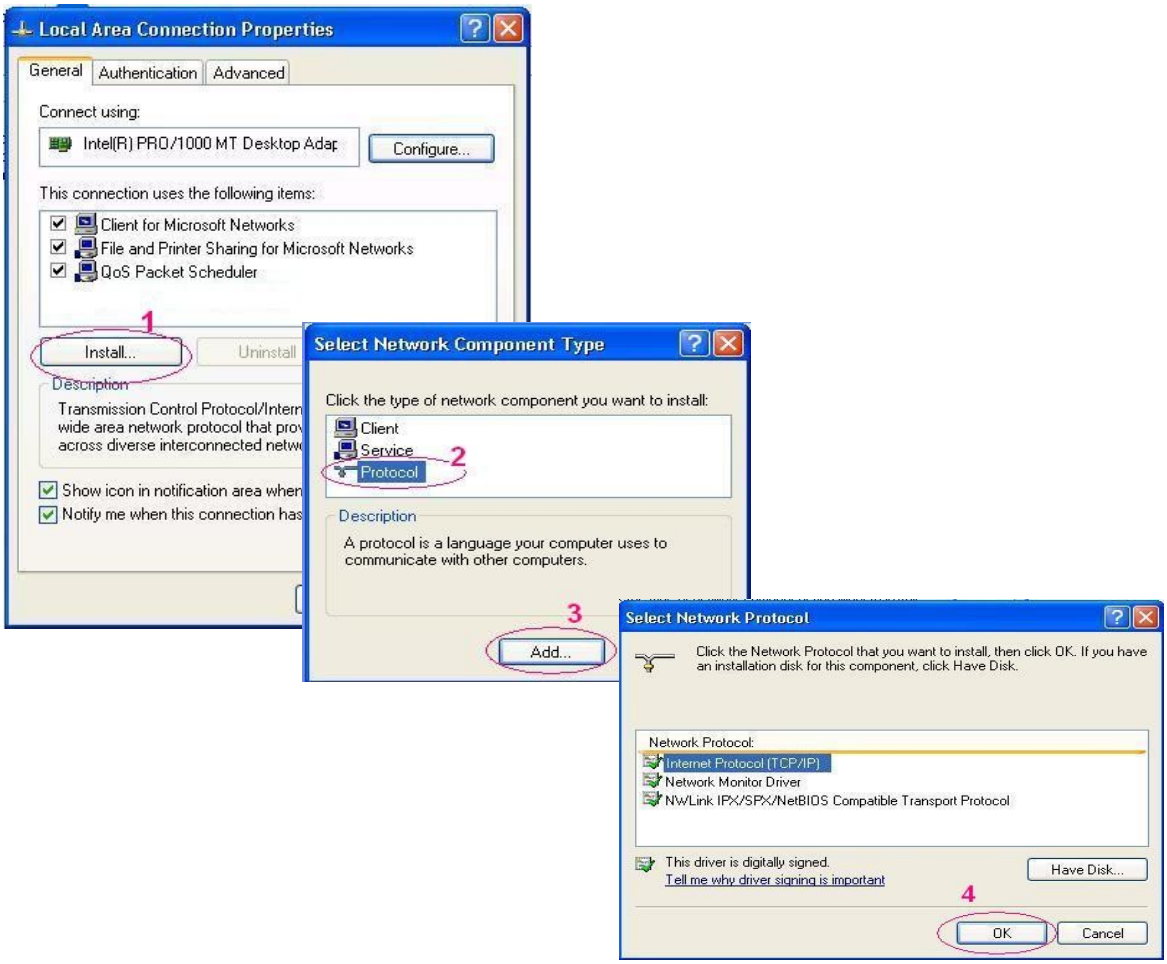


4. Click the **General** tab, and verify that TCP/IP is included among the network components list (that is, it has been selected with a check mark). If TCP/IP is included, continue with step 6. If it is not included, follow the procedure in step 5 to install TCP/IP.



5. TCP/IP installation

   During the installation, you will be requested to insert the Windows XP CD-ROM. After installation, the PC must be restarted.

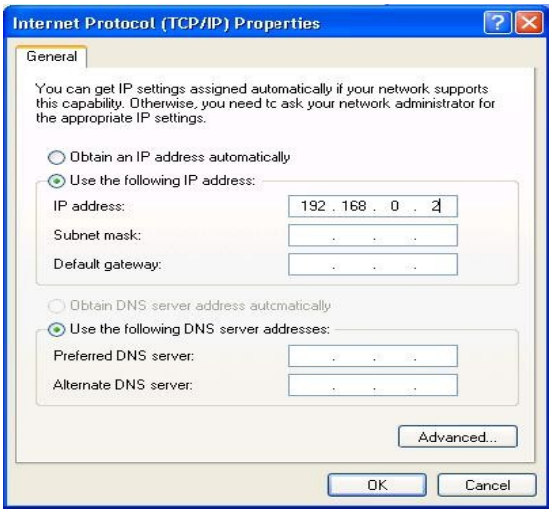


6. TCP/IP Configuration setting

- Click **Start → Control Panel → Network Connections → Local Area Connection**.
- Select **Internet Protocol (TCP/IP)** and then click **Properties**.

Notes

Before completing the EDVR installation in a WAN, verify that your Internet connection works properly. If not, contact your network system administrator or Internet Service Provider (ISP).


Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
192 . 168 . 0 . 2
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

- If you are using a DHCP server, select **Obtain an IP address automatically** and click **OK**. Any assigned IP address for the connected EDVRs must be in the same class type as the server. If there is no DHCP server available, select **Use the following IP address** and type in the IP address of your PC, and click **OK**. This IP address must be different from the EDVR IP but in the same class type.

Note

The IP address of an EDVR in a network must be unique; that is, different from those of the other PCs, but in the same class type.

Connection Testing

After completing the previous settings, follow these instructions to ensure that you have established the connection successfully.

1. **Click Start → Command Prompt**

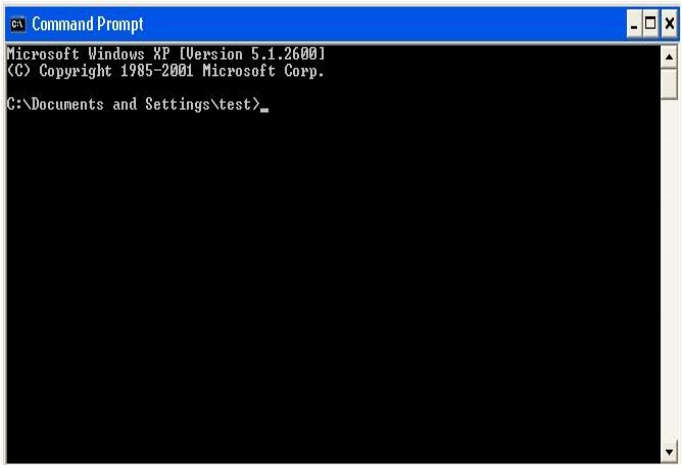
Note

If your PC is configured using the Classic Windows Start Menu, click **Start → Accessories → Command Prompt**.

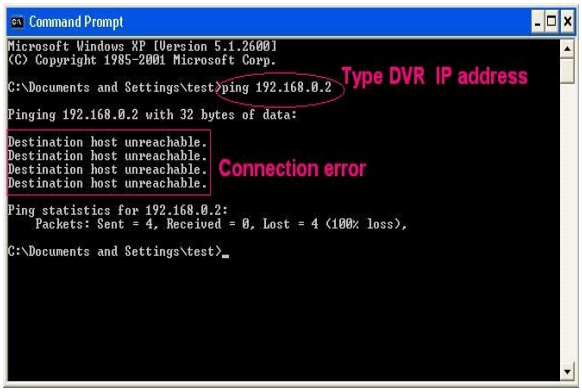
2. Type in “ping 192.168.0.1” then press **Enter**. (See the sample screen that follows.)

Note

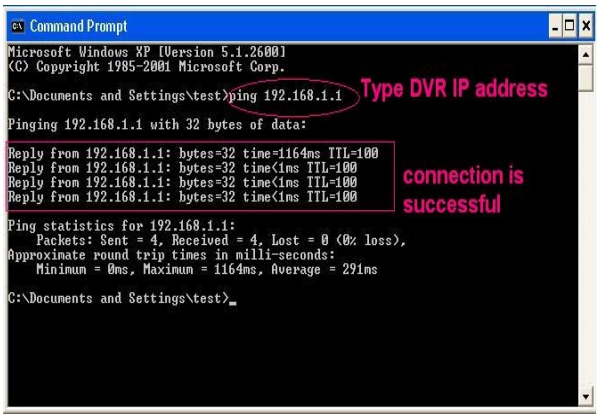
This IP address is assigned for the connected EDVR. When connecting to a network, each connected EDVR must be assigned a unique IP that must be in the same class type as your network address. IP addresses are written as four sets of numbers separated by periods; for example, 192.168.1.1 Therefore, if the connected network is identified as Class C, for example, the first three sets of numbers of the EDVR IP address must be the same as the network address.



3. If you receive a response as in the following sample screen, the connection hasn't been successfully established. Verify your hardware and software installation by repeating the procedure, "TCP/IP Communication Setup," page 73. If you still can't establish the connection, contact your local network support personnel. If all of your network settings are correct, contact your Account Manager.


Command Prompt
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\test>ping 192.168.0.2
Type DVR IP address
Pinging 192.168.0.2 with 32 bytes of data:
Destination host unreachable.
Destination host unreachable.
Destination host unreachable.
Destination host unreachable.
Connection error
Ping statistics for 192.168.0.2:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\Documents and Settings\test>

4. If you receive a response as in the following sample screen, you have successfully made the connection.

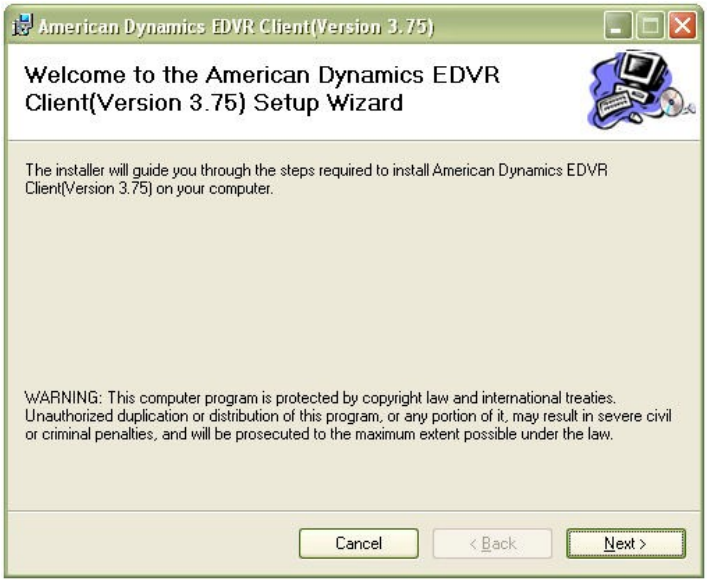

Command Prompt
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\test>ping 192.168.1.1
Type DVR IP address
Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1: bytes=32 time=1164ms TTL=100
Reply from 192.168.1.1: bytes=32 time<1ms TTL=100
Reply from 192.168.1.1: bytes=32 time<1ms TTL=100
Reply from 192.168.1.1: bytes=32 time<1ms TTL=100
connection is successful
Ping statistics for 192.168.1.1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1164ms, Average = 291ms
C:\Documents and Settings\test>

Software Installation

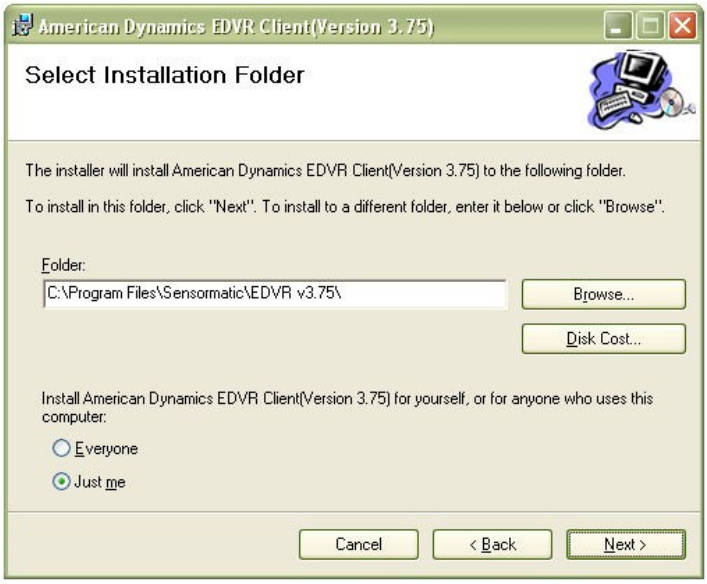
1. Exit all applications currently running on the selected PC.
2. If you already have earlier versions of the Windows .NET Framework and MDAC on your PC, the installation program on the CD-ROM will automatically execute the installation of the Microsoft Windows .NET Framework and MDAC after you click the "Setup.exe" file.
   - If you click **OK**, the installation will be completed automatically. You may need to wait 3 to 5 minutes for the installation to complete.

American Dynamics EDVR Client(Version 3.75) Setup
To start American Dynamics EDVR Client(Version 3.75) Setup, click OK. To quit without installing, click Cancel.
OK
Cancel

3. After you have completed installing the Microsoft .NET Framework 1.1 package and Microsoft Data Access Components 2.7, you will automatically enter the EDVR Client installation screen.
   - Click the **Next** button to continue.

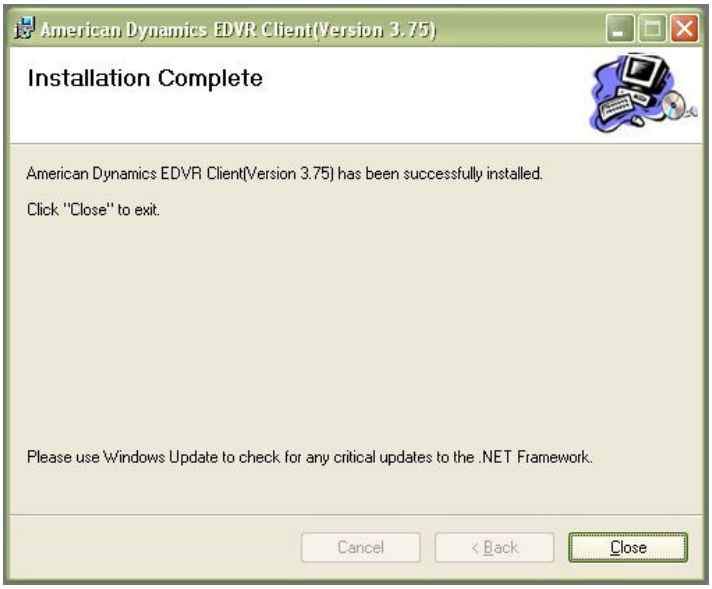

American Dynamics EDVR Client(Version 3.75)
Welcome to the American Dynamics EDVR Client(Version 3.75) Setup Wizard
The installer will guide you through the steps required to install American Dynamics EDVR Client(Version 3.75) on your computer.
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.
Cancel
< Back
Next >

4. The installation screen will include the default installation path, "C:\Program Files\Sensormatic\EDVR\". If you prefer a different installation folder (directory), you can enter that path in this window. (That is, enter the new path or select “Browse” to locate an existing folder.)
   - Select the option that is correct for your installation: access for everyone using this computer or only for yourself.
   - After you have selected an installation folder, click **Next** to continue.


American Dynamics EDVR Client(Version 3.75)
Select Installation Folder
The installer will install American Dynamics EDVR Client(Version 3.75) to the following folder.
To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".
Folder:
C:\Program Files\Sensormatic\EDVR v3.75\
Browse...
Disk Cost...
Install American Dynamics EDVR Client(Version 3.75) for yourself, or for anyone who uses this computer:
Everyone
Just me
Cancel
< Back
Next >

5. After you have clicked **Next** in the preceding step, you will receive a confirmation message to verify that you do want to continue with the installation of the EDVR Client software. Click **Next** to continue.

6. During the installation of the EDVR Client, you will see a window with a progress bar.
7. When the installation is successful, you will see the following window. Click the **Close** button to complete the installation process.


American Dynamics EDVR Client(Version 3.75)
Installation Complete
American Dynamics EDVR Client(Version 3.75) has been successfully installed.
Click "Close" to exit.
Please use Windows Update to check for any critical updates to the .NET Framework.
Cancel
< Back
Close

8. After completing installation, you can start the EDVR Client in one of two ways:
   - Double-click the desktop icon (shown in the following figure), or

   - Open the **Start** menu on your computer and select **Programs** → **American Dynamics EDVR** to open the program selection menu. Click the **EDVR Client** program link to start the program.

Note

Verify that the TCP/IP communication software has been properly configured on your computer.

Updating the EDVR Client Software Installation

It is not necessary to remove the current installation of the EDVR Client software (that is, an earlier version) before you install a later version. When you install a later version of the EDVR Client software, the earlier version will be automatically removed prior to the installation of the later version.

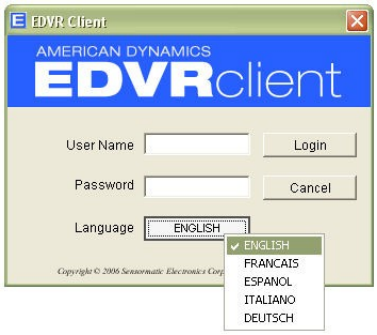
However, if you attempt to install the same version as the currently installed version, you will be prompted by the installation program to either remove or repair the installed version.

Using the EDVR Client

Introduction

Once the EDVR Client has been started, a login window will appear.

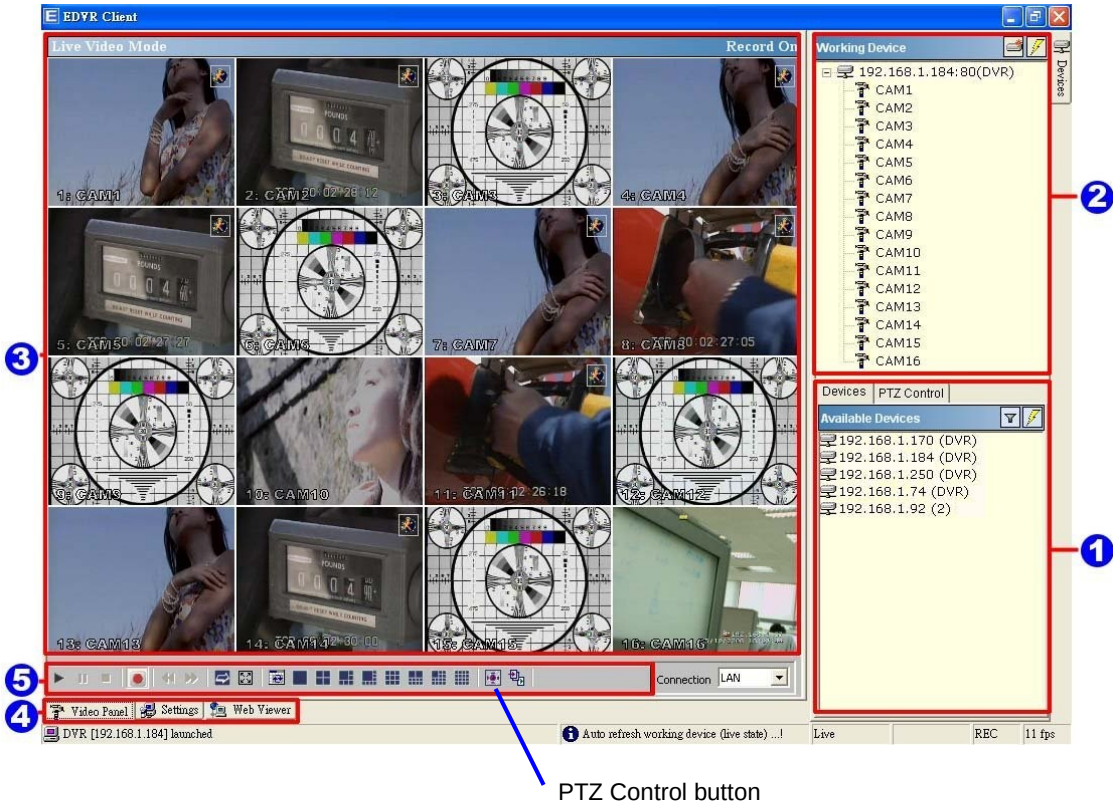
Type the appropriate user name and password to log on to the EDVR, the default administrative username and password are **admin** and **9999**, respectively. Then click the **Login** button.



Program Introduction

There are three main views of the EDVR Client that appear in the area labeled 3 in the following figure. Each view can be selected by clicking the appropriate tab near the bottom left of the EDVR Client main window (see label 4 in the following figure).

- Video Panel
- Settings
- Web Viewer



Video Panel

When you start the EDVR Client, the default view displays the Video Panel. This is the first of the three major "views" available in the main window of the EDVR Client.

Refer to the preceding figure to locate the following major screen and control areas by label number.

1. **Available Devices/PTZ Controls**

   These two tabs refer to the same pane of the main window.

   All EDVRs that are connected to the network are listed by IP address (see label 1 in the following figure). When you double-click any EDVR (the IP address/name) in label 1, you will see the following screen. Enter the correct username and password to log on to the selected EDVR. The default username and password are **admin** and **9999**, respectively.

   At this point, you can click the **PTZ Control** button to access the PTZ Control mode.

2. **Working Device**

   After you select the IP address of an EDVR, that EDVR and all of its cameras will be displayed in the upper right section (label 2 in previous figure).

3. **Multi-Screen**

   All the videos of the cameras will be displayed (label 3 in previous figure). Use the function buttons (label 5) or click directly on a camera (channel) video to change the display.

4. **EDVR Client View Tabs**

   Select the appropriate tab to change the view of the EDVR Client main window (in the area labeled 3, "Multi-Screen"): Video Panel, Settings, and Web Viewer.

5. **Function Buttons**

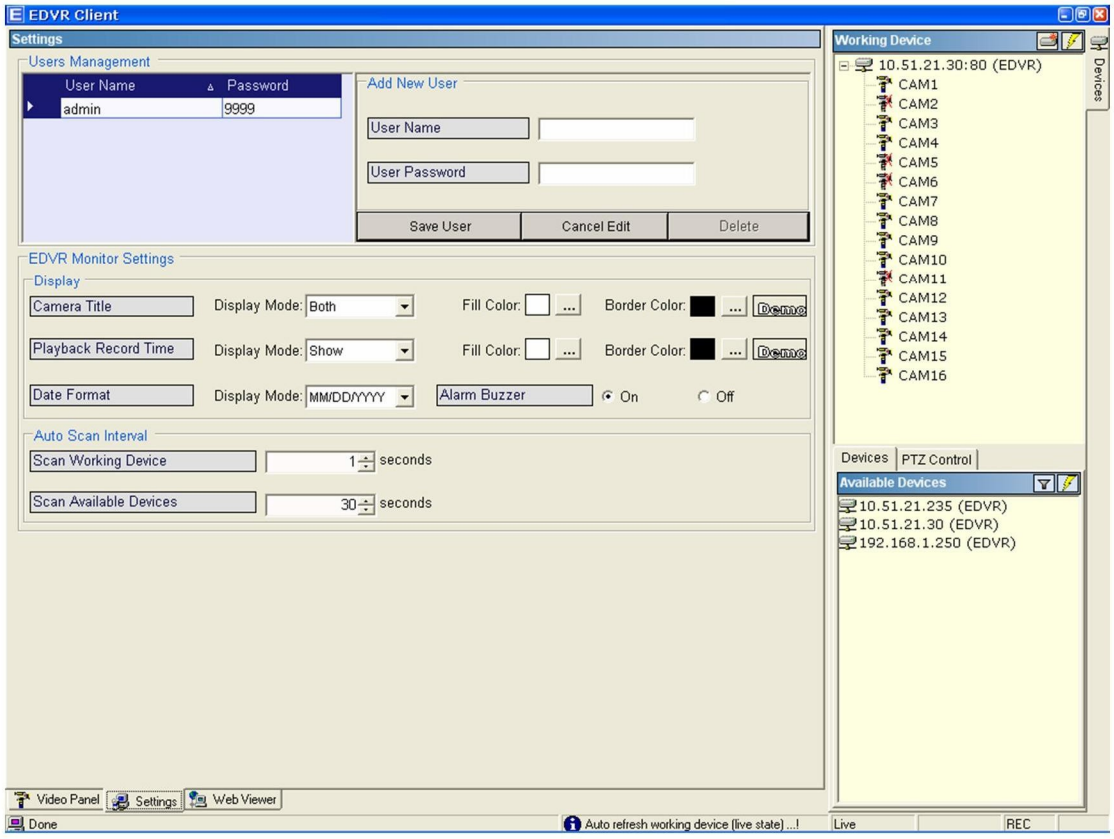
   Click a button to execute its function.

   Note

   When you place the mouse pointer over a button, text appears that describes that button.

Settings

The Configuration Settings view is the second of the three major views of the EDVR Client. Click the Settings tab from the EDVR Client main window to access this view.

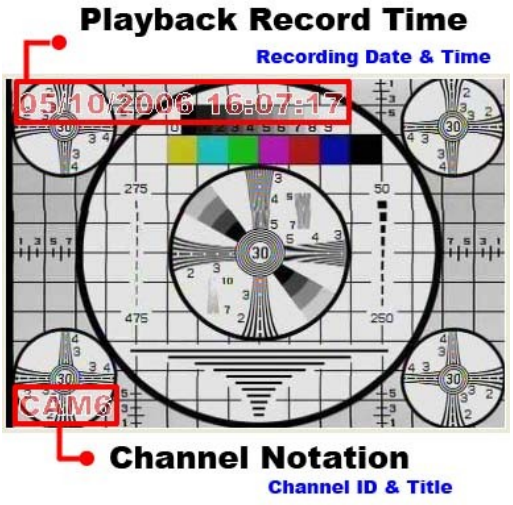


Channel Notation

If you wish to change the Display Mode, open its drop-down list and select any of the four items there. Your choice will automatically appear in the relevant blank space. Similarly, you can enter the **Fill Color** and **Border Color** entries to open their respective color tables. Click **OK** in each case to save your choice.

Playback Record Time

Click **Display Mode** to select from a drop-down list of two options: **Hide** and **Show**. Your choice will determine whether the images will include the date and time.



Data Format

Click the **Display Mode** to select from a drop-down list of two date format choices: **DD/MM/YYYY** and **MM/DD/YYYY**.

Auto Scan Interval

You are provided two choices: **Scan Working Devices** and **Scan Available Devices**. Set the time in seconds for both entries as you require.

The **Scan Working Devices** entry has a time span of 1 to 5 seconds only. The **Scan Available Devices** time range covers 30 to 1000 seconds.

User Account Management

Click the **Save User** button to add a new user's name and password under **Add New User**:

Enter the **User Name** and **Password** and click **Save User** again. Your new user and the new user's password will appear on the **User Name & Password** list to the left.

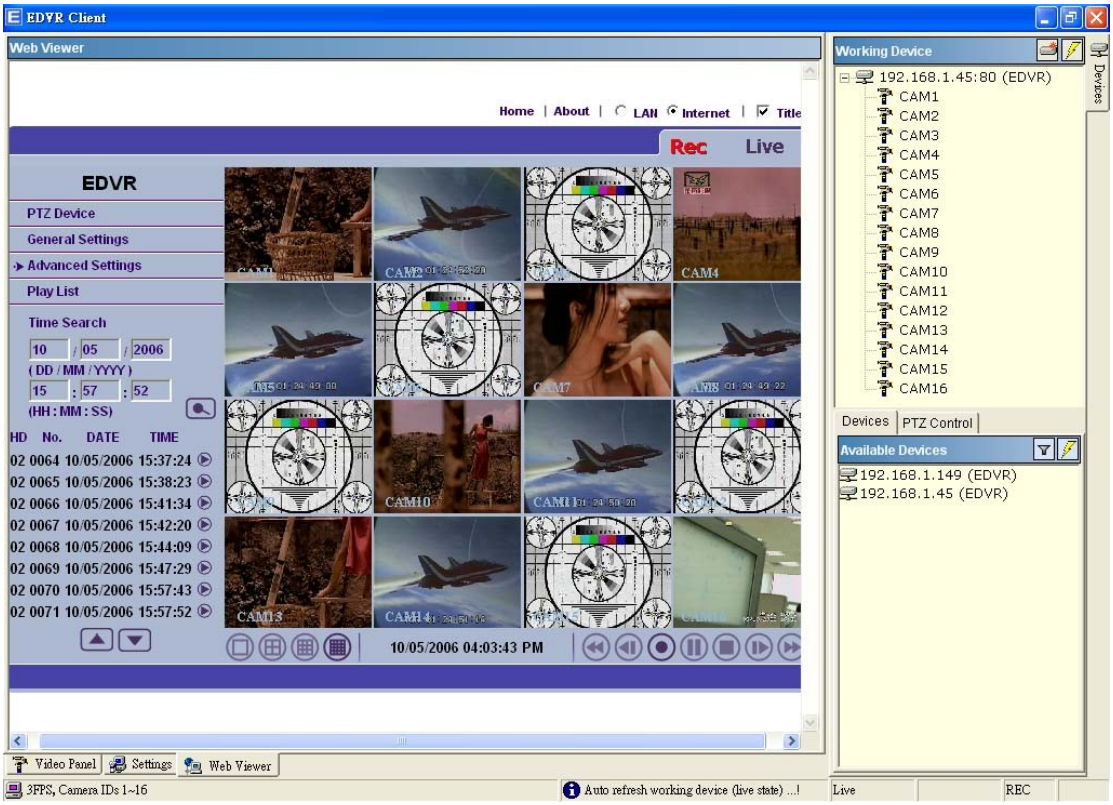
If you proceed to enter a new user and then click **Cancel Edit**, no new name will be added to your list.

If you wish to delete any user, click his name and click **Delete** to effect the change.

Web Viewer

The Web Viewer tab is the third of the three major views of the EDVR Client.

Both the EDVR Client Web Viewer feature and using a Web browser (such as Microsoft's Internet Explorer) access the Web server within the EDVR unit. Refer to the summary of using a Web browser for further information about these features (see "Using a Web Browser," page 95).



1. Click **PTZ Device** to open the control panel and remote control the pan/tilt/zoom function camera live over a local area network or the Internet.
2. Enter the **General Settings** page to set the title, the date and time modes, and the date and time of the device. Click **Submit** to save your changes.

3. Click **Advanced Settings** to enter four pages: the **Image**, **Alarm**, **Record**, and **User** pages.

   - **Image**

     Click **Image** to enter the **Image** page to set each channel's Channel Title, Quality, Noise Filter, Brightness, Contrast, Color, and Hue. Click **Submit** to save your changes.

   - **Alarm**

     The upper part of the window enables you to set the Duration, Disk Full, PreAlarm, and Frame Rate of the alarm for the device. The bottom part of the window helps you set each channel's settings in the event of an alarm. Set the Select Channel, Record Mode, Quality, Sensor Type, Sensor Sensitivity, Sensor Output, Video Loss Output, and Motion Output for each channel. Click **Submit** to save your changes.

   - **Record**

     Click **Record** to enter the **Record Settings** page. In the upper part of the window you can set the device's Disk Full, Frame Rate, Audio Rate, and Audio Channel entries. In the lower part of the window set each channel's Select Channel and Quality values. Click **Submit** to save your changes.

   - **User**

     Click **User** to enter the **User Settings** page and set the device's User Name, Password, New Password, and Confirm. Click **Submit** to save your changes.

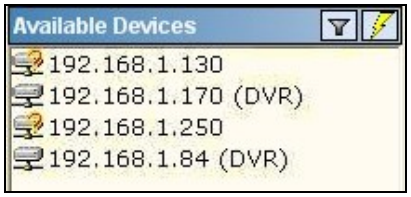
Note

This device also provides remote control and viewing capabilities via a Web browser, such as Microsoft Internet Explorer. Refer to the section, “Using a Web Browser,” page 95, for more details.

Operation

Remote Control

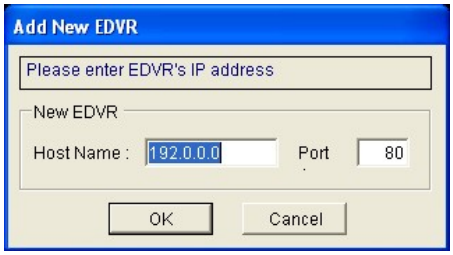
1. After starting the EDVR Client, click the button to select an **EDVR** and then click the **Available Devices** button. The software will automatically search the whole local LAN for all EDVR devices to display a list of EDVRs.



   Note: If you want to create a new EDVR connection via the Internet, press the button (near top right of item 2; see page 81).

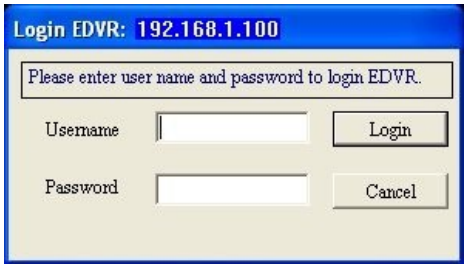
   Enter the EDVRs **Host Name** or IP address and its **Port**, then press **OK** to add the EDVR connection.

   (The default port is 80.)

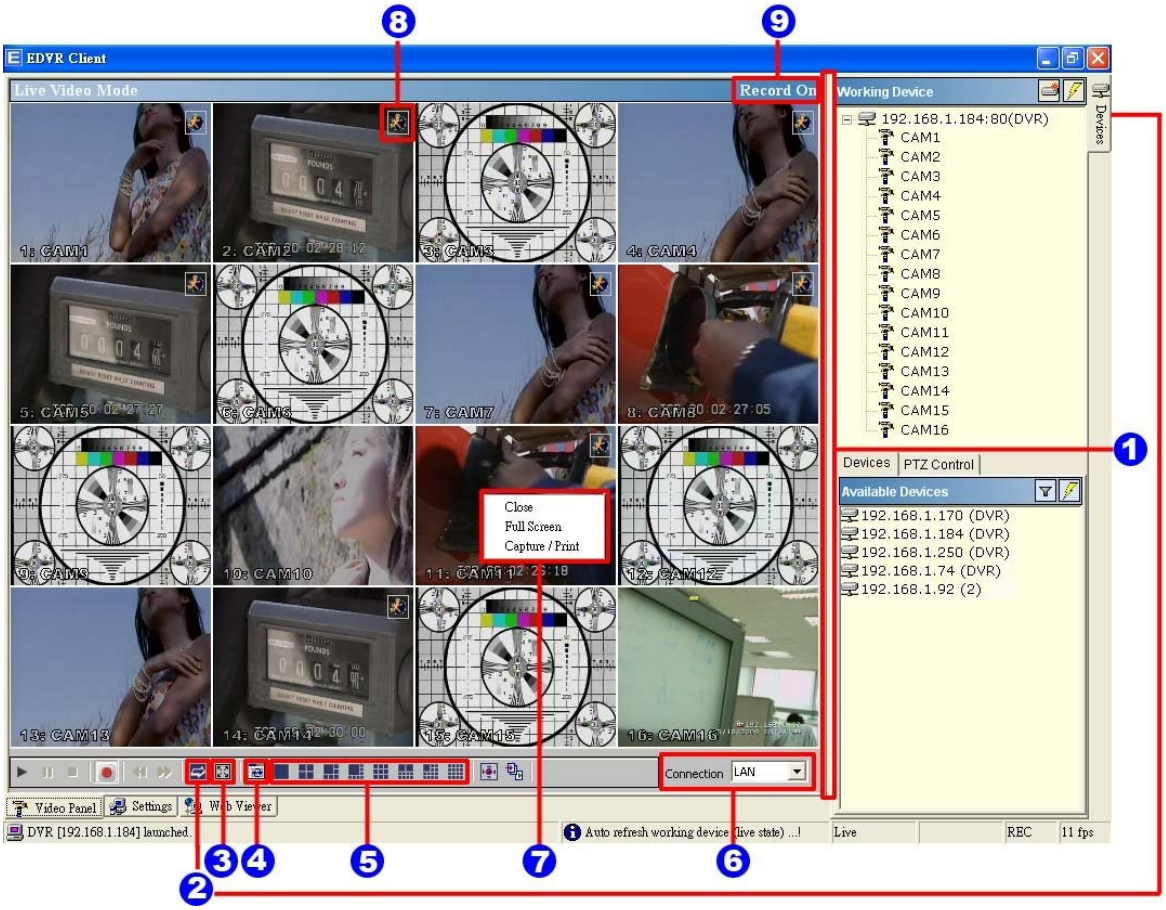


2. Double-click the selected EDVR to access that EDVR’s login.

   Enter the **Username** and **Password** -- the default administrative username and password are **admin** and **9999**.



3. The default multi-screen is the mode that you see now (depending on EDVR model: 4CH, 9CH, or 16CH).
4. The EDVR Client allows you to view almost any display mode that you want.



1. **Adjust the screen size**

   Move the mouse to the vertical bar on the left side of the **Working Devices** / **Available Devices** panes on the right side of the screen. This bar runs from the top to the bottom of the screen, and when you move the mouse pointer to this bar and move the bar while pressing the mouse button, the bar appears as the following: ⇹. You can move this bar to the left to narrow the **Working Devices** / **Available Devices** panes and to the right to widen them.

2. **Hide Device Panel**

   Click to turn off the **Working Devices** / **Available Devices** panes from view.

3. **Full Screen**

   Click to show the full screen for surveillance. All of the settings buttons will be hidden in this mode. If you want to return to the previous mode, click the right mouse button and choose **Close**.

4. **Re-arrange the divisions**

   Click to see the following channels.

5. **Screen divisions**

   Choose any of the buttons you want.

6. **LAN or Internet mode**

   Click to enter the LAN and Internet modes alternately.

7. **Shortcut menu**

Use the mouse to select a channel. Click the right mouse button to display the shortcut menu for that channel. You can select **Close**, **Full Screen**, or **Capture / Print**.

- **Close:** Stops the channel's display
- **Full Screen:** Enlarges the display to Full Screen.
- **Capture / Print** (refer to the following)
- **Capture**

  Select the "Image Preview" page for the "Preview Settings" page, which has two choices: **Mark Date and Time** and **Mark Channel Title**.

  Mark the item **Mark Date and Time** to set the date and time stamp on a chosen picture.

  Choose an appropriate **dimension** before saving the image.

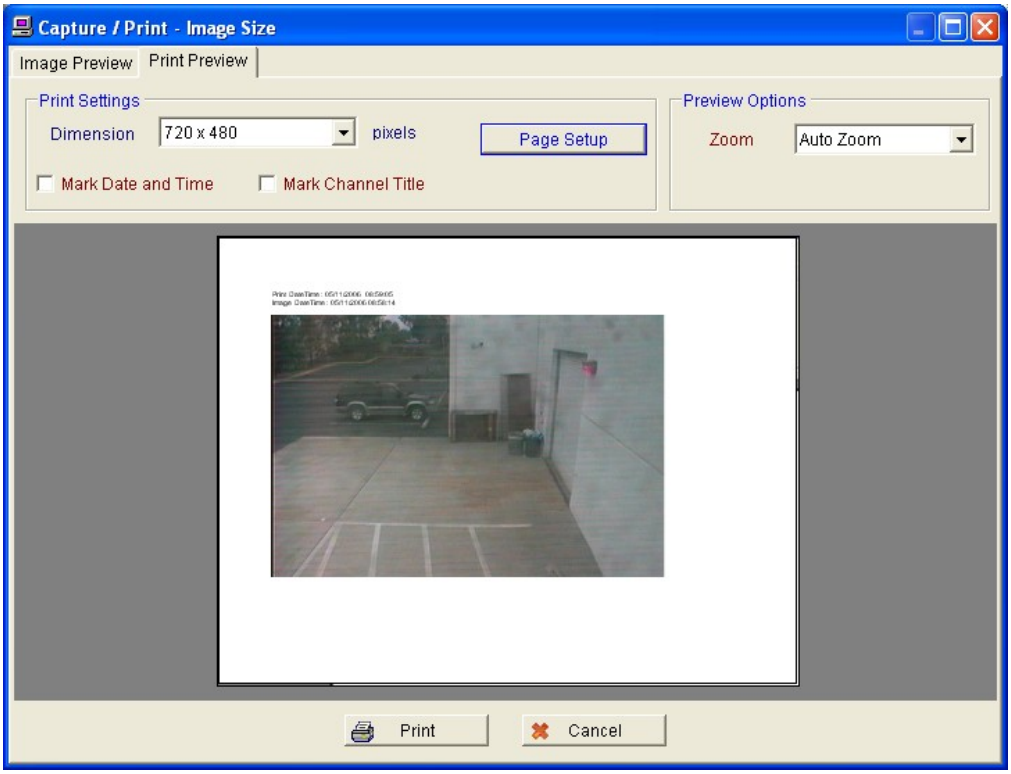
  To save the image, click **Save** at the bottom to enter the **Save Page** window. Select the file name and folder. If you want to exit, click **Cancel**.

- **Print**

  Click the **Print Preview** button and select the **Preview Option** to adjust the image size.

  Go to the **Print Settings** area and then to **Mark Date and Time** if you wish to stamp the date and time of the image on the image itself.

  Select **Dimension** to choose the appropriate pixel dimensions from the list. Click **Print** to start the printing. Click **Cancel** to exit.



8. **Motion on/ Alarm on:** The warning icons.

   Motion on icon: When motion is detected in any channel, the EDVR Client will display this icon in the right upper corner in that channel as a warning indicator.

   Alarm on icon: When external devices such as a sensor are detected, the EDVR Client will display this icon on the right upper corner on that channel as a warning indicator.

9. **Recording in Progress** reminder:

   Record On When the user starts to record, this text appears on the screen above and to the right of the video image, and disappears when the recording stops.

   Disk Full When the hard disk is full, the EDVR will stop recording and this text will appear on the screen.

Remote Play and PTZ Controls

The EDVR has full triplex functionality so you can use the EDVR Client remotely without affecting the performance of the EDVR. You can also use the EDVR Client to play saved video files and make back ups.

If your system includes a PTZ-capable camera, the EDVR Client can also control it.

Remote Play

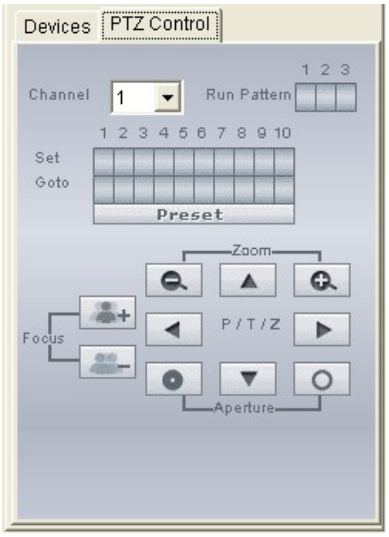
The following EDVR Client panel includes buttons that allow you to play, pause, stop, record, fast rewind, and fast forward, as described in the following.

	Play	Click it to see the EDVR play window. Use the **Previous page** and **Next page** buttons to find the record you want from the record list. Click the **Time Search** page to use the time and date search entries to help your search.
	Pause	Click to freeze the image.
	Stop	Click to stop playing back the recorded video.
	REC	Click to start or stop the recording of the EDVR.
	REV	Click to play a recorded video in the reverse direction at speeds, which are faster than the recorded speed.
	FWD	Click to play a recorded video in the forward direction at speeds, which are faster than the recorded speed.

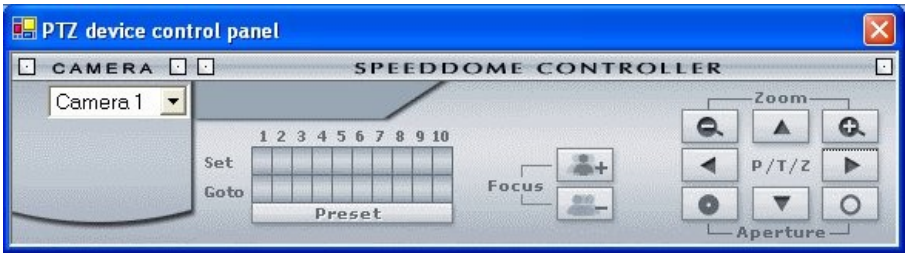
Change Pan / Tilt / Zoom Settings

There are two methods of accessing the PTZ Controls.

- On the EDVR Client main window pane (see figure, pane label 1, page 81), click the **PTZ Control** tab. (**Note**: The other tab is labeled **Devices** and shows you a list of the available EDVRs on the network.)



- Click the button on the home page to open the Speed Dome Controller (see figure, PTZ Control button, page 81).



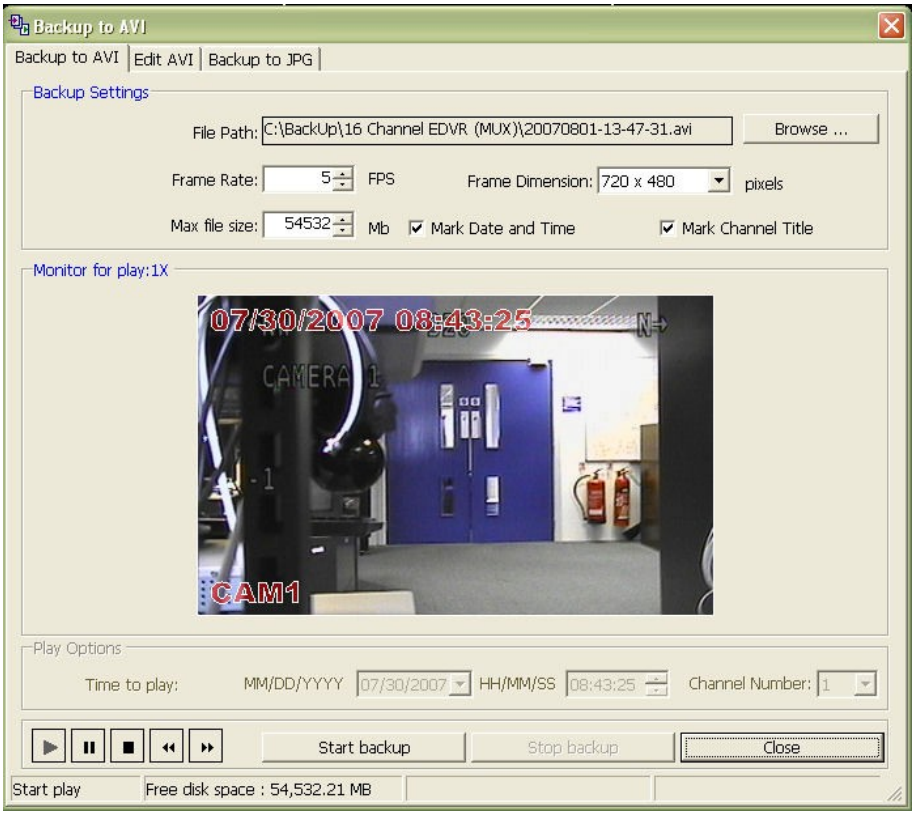
Control	Description
	Click to control the Zoom setting on the Speed Dome Controller.
	Click to control the Aperture setting on the PTZ device control panel.
	The right-hand set has four direction buttons. When you click a button, the camera will be turned all the way, without stopping, in one of the four designated directions.
	Click to control the Focus setting on the PTZ device control panel.
	Select a Speed Dome device ID from the drop-down list on the Speed Dome Controller. The Controller will display the corresponding ID.

Control	Description
	Click to choose one of the patterns that were set by the EDVR device. **Note:** The "Run Pattern" control is not available from the floating Speed Dome Controller window; only from the tabbed pane.
	Each of the ten buttons to the right of **Set** is connected with a specific position and angle for either panning or tilting the camera. Click each button to activate its particular position and angle. Each of the ten buttons to the right of **Go to** can be clicked to view the particular corresponding angle of the position in which it is set.

Backup and Video Edit

Use the button to access the **Backup** window to save a video file to your PC.

Backup up to AVI



Backup Settings

- **File Path:** To set the backup file path and the file name, click the **Browse** button on the right to select the path and file.
- **Frame Rate:** Sets the backup record file speed.
- **Max file size:** Sets the maximum file size.

  Note: The unit of "Maximum File Size" for the Windows XP system is "Mb", but the unit of "Maximum File Size" for Windows 98 and Windows Me is "frame".
- **Frame Dimension:** Sets the resolution dimensions, in pixels.

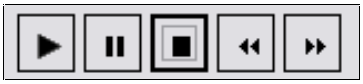
- **Mark Day and Time:** Includes the date and time stamp label in the file.
- **Mark Channel Title:** Includes the channel title label in the file.

Play Options

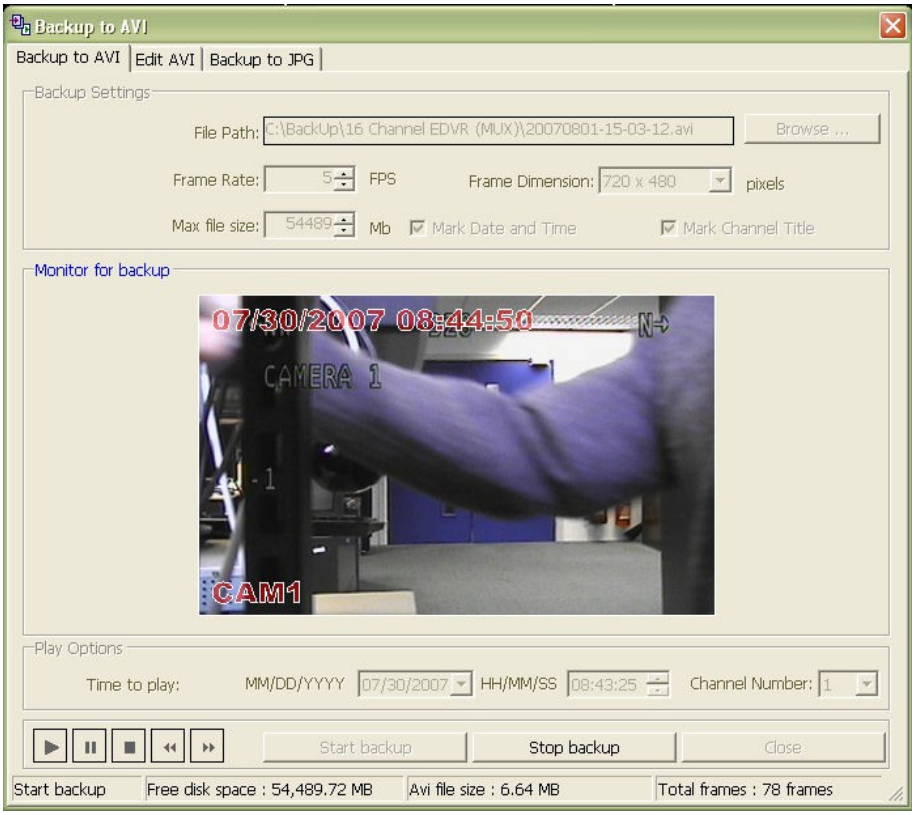
- **Time to play:** To search for a specific date and time within the recorded video.
- **Channel Number:** To choose the camera from which video was recorded.

Play Monitor

- Use the controls on the following panel to play, pause, stop, fast rewind, and fast forward.

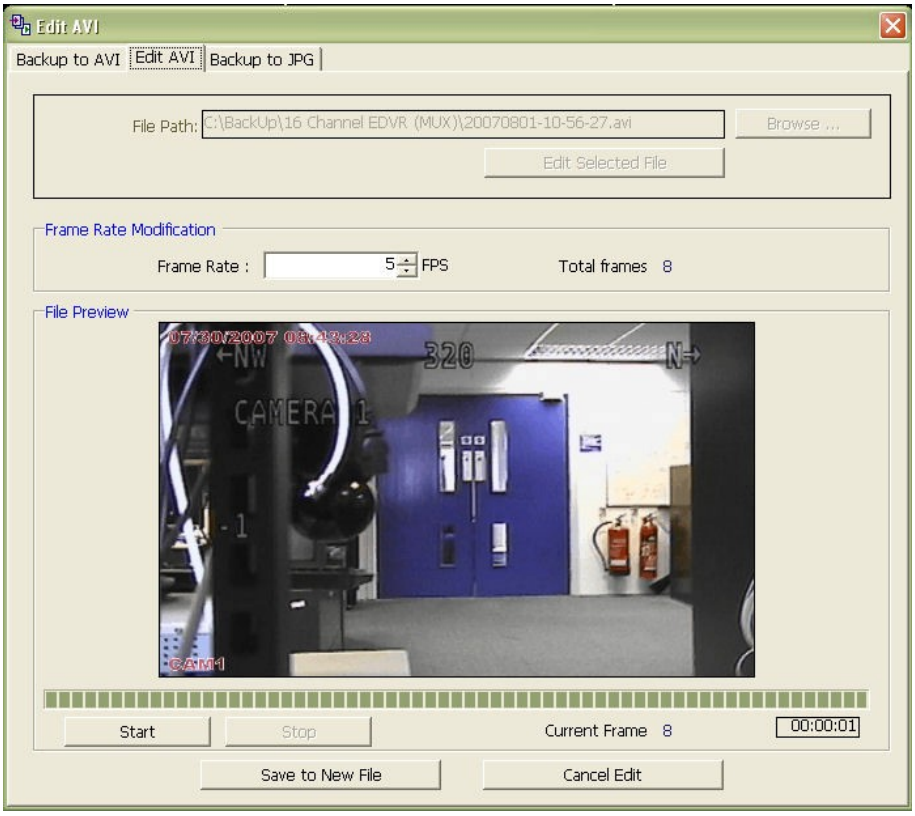


- To begin a backup, click the **Start backup** button. Click the **Stop backup** button when you are finished.



Edit AVI

- **File Path:** To set the backup file and the file name, check the **Browse** button on the right to locate the path and the file. Click **Edit Selected File** to start editing.
- **Frame Rate Modification:** To see the total number of frames, modify your frame rate.
- **File Preview:** Click the **Start** button to start your setting component. You can also use the **Start** button to interrupt the code.
- Click the **Save to New File** button to save a new file after the edit code.



Backup to JPG

- **Folder Path:** To set the backup file path, click the **Browse** button on the right (to select a folder).
- **Max No. of Frames:** Sets the maximum number of frames that you wish to backup.
- **Frame Dimension:** Sets the resolution dimensions (in pixels).
- **Mark Day and Time:** Includes the date and time stamp label in the file.
- **Mark Channel Title:** Includes the channel title label in the file.

Play Options

- **Time to play:** To search the date and time you want.
- **Channel Number:** To choose the camera.

Play Monitor

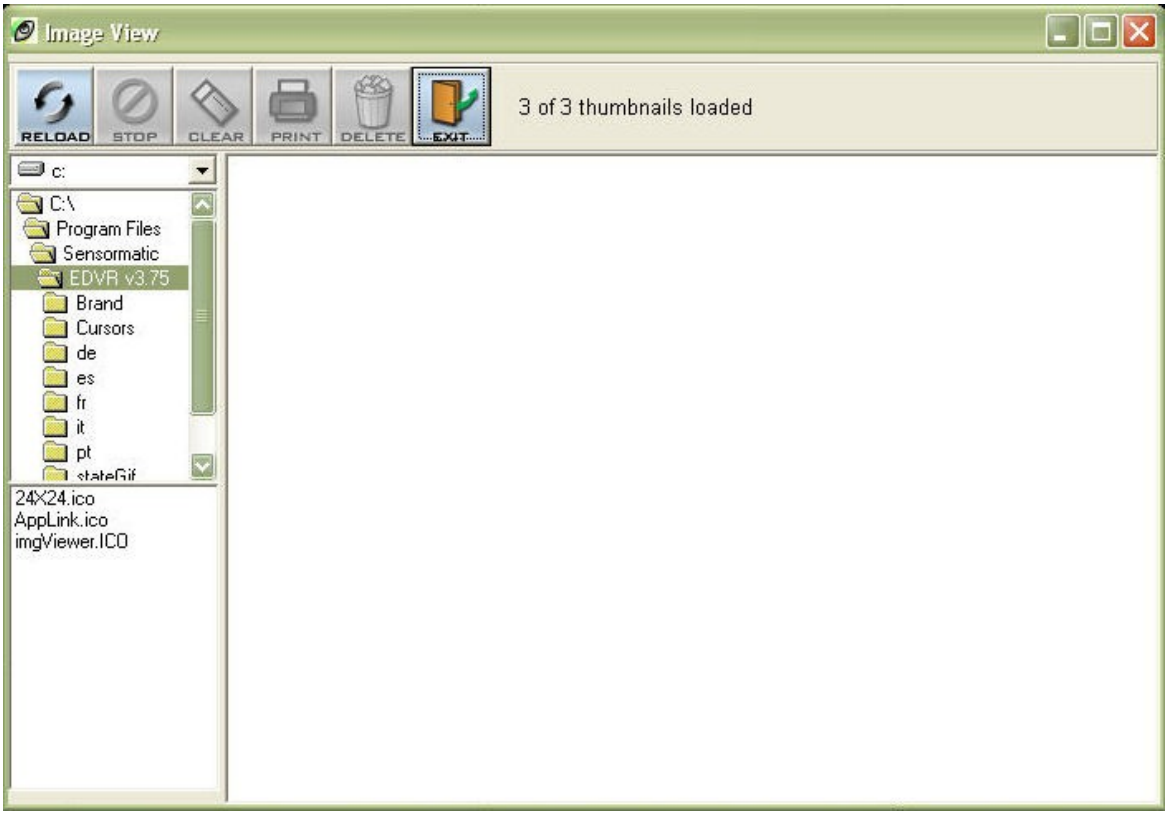
- Use the controls on the following panel to play, pause, stop, fast rewind, or fast forward, respectively.

- To begin a backup, click the **Start backup** button. Click the **Stop backup** button when you are finished.

The Image Viewer

To start the Image Viewer:

From your Windows PC, go to the **Start** menu, and select **Programs → American Dynamics EDVR → EDVR Image Viewer**. Refer to the following sample screen.



The EDVR is equipped with a digital “watermark,” a feature that protects archived images and informs you whether the images have been modified. This is image integrity-protection software. It not only allows you to view an archived image from the SD card or hard disk driver (HDD) of a computer, but also protects an archived image from reproduction or interpolation (editing). If an image is not in the original format form supplied by the EDVR, the Image Viewer will not display the image and instead will display the warning message “Not Correct Image”. Closing this message enables you to view the image.

Complete the following instructions to open an archived image from an SD card or from hard disk drive (HDD).

1. Click the **RELOAD** button to load the images from a path.
2. Click the **PRINT** button to get a displayed image printed out from a printer.

Using a Web Browser

This section provides instructions for remotely accessing the EDVR using a Web browser, such as Microsoft Internet Explorer.

Notes

- Your EDVR must be configured with a network connection to provide this access.
- This Web browser view is also available from the EDVR Client. From the EDVR Client main window, select the Web Viewer tab (near the bottom center of the screen (see “Web Viewer,” page 84).

Connecting to the EDVR

Start your Web browser (for example, Microsoft Internet Explorer) and then follow these steps to connect to the EDVR:

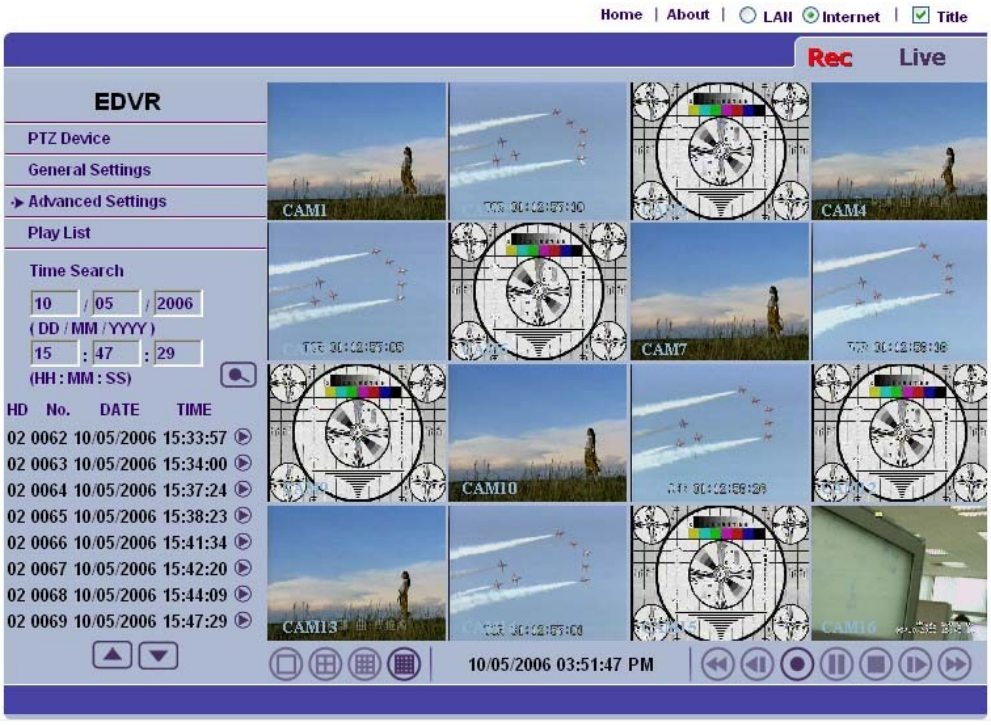
1. Click the URL entry box near the top of the Web browser window.
2. Type in the URL (address) of the EDVR into the URL block and press the **Enter** button to enter the login page. The default administrative User Name and password are **admin** and **9999**, respectively.
3. Enter the user name (Login Name).
4. Fill in the password (Password).

   Select the Save Password checkbox to save this password in your Windows operating system password list.
5. Click the **OK** button to enter the home page of the EDVR: both the user name and password must be correct.

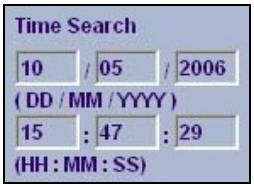
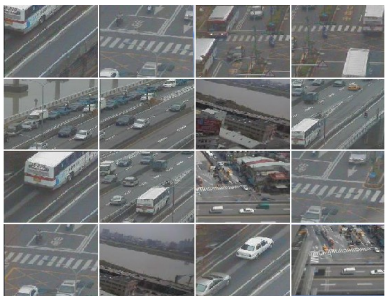
Click the **Cancel** button to cancel entry to the home page of this EDVR.

Browsing Images from the EDVR

After going online with the EDVR, the images from the EDVR will be displayed on the home page. There are control buttons on the bottom of the home page that provide additional settings and are described in the following:

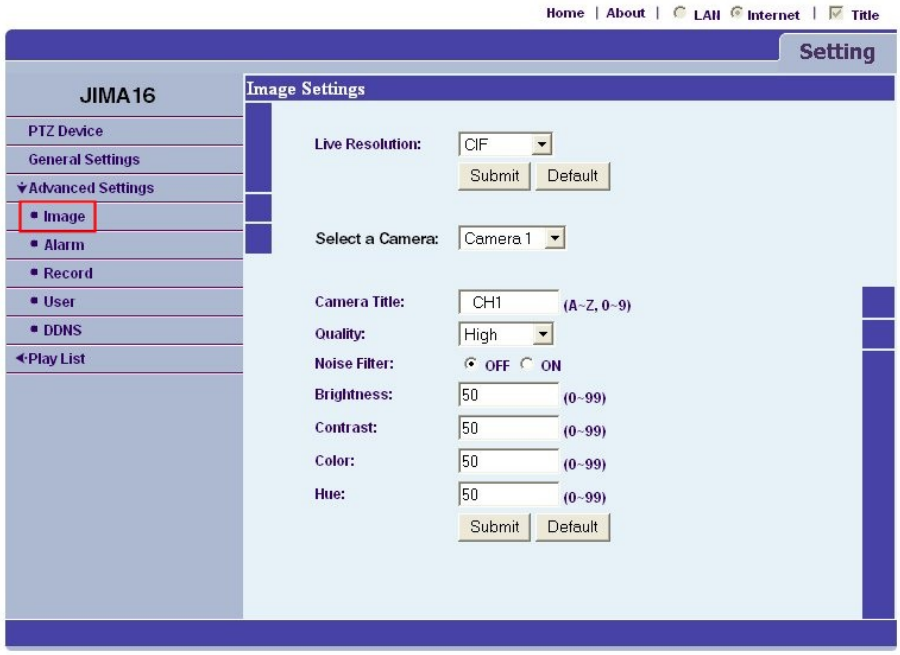


Function Button	Description
Home	Home - Click it to go back to the main page.
LAN Internet	LAN / Internet - Click to choose the LAN or Internet mode. In the LAN mode, the user can get a higher quality of Internet connectivity.
Title	Title Display - Tick it to show the titles of the channels and click it once again to deactivate.
	Stop - Click to stop playing back the recorded video or to cease recording.
/	Pause / Play - Click to a recorded video from the PLAY LIST.
	Rec - Click to start recording video onto a hard disk of the EDVR while in the live display mode. Press again to stop the recording.
	Step - Click to view images in the reverse direction picture-by-picture.
	Step - Click to view images in the forward direction picture-by-picture.
	REV - Click to play a recorded video in the reverse direction at speeds which are faster than the recorded speed.

Function Button	Description
	FWD - Click to play a recorded video in the forward direction at speeds which are faster than the recorded speed.
	The Split-Screen display function bar: These buttons allow you to display the connected device in the multi-format screens of 1, 2x2, 3x3, and 4x4.
	Recorded video list: This list allows you to access all recorded video that are stored on the hard disk drives (HDDs) of the connected devices. To review (play) a recorded video, simply select an entry from the list and click the button. **PgUp** / **PgDn**: Enables you to scroll up and down the list.
	This function allows you to search a recorded video stored in the HDD of the device. Enter the YEAR/MONTH/DAY HOUR: MINUTE: SECOND you wish to search and click the **Go** button to proceed.
	Time Search play: This allows you to play a recorded video stored in the HDD of the device.
	EDVR date & time.
	This box indicates the selected device status. Play: The device is in the playback mode. Live: The device enters the live display mode.
	Image display area. Displays images from the selected EDVR cameras. **Note:** In single-channel display mode, click on this display area to change to the next channel.
	Click "PTZ Device" to open the PTZ control panel and to remotely control the pan/tilt/zoom functions of live camera over a local area network or the Internet. Refer to the section “Remote Play and PTZ Controls” page 89, for more details.
	Select to set the title, the date and time modes, and the time.
	Select to set each channel's Channel Title, Quality, Noise Filter, Brightness, Contrast, Color, and Hue. Click **Submit** to save any setting change(s).

Advanced Settings: Image

Click to enter the Image Settings page to set each channel's Channel Title, Quality, Noise Filter, Brightness, Contrast, Color, and Hue. Click **Submit** to save any setting change(s).



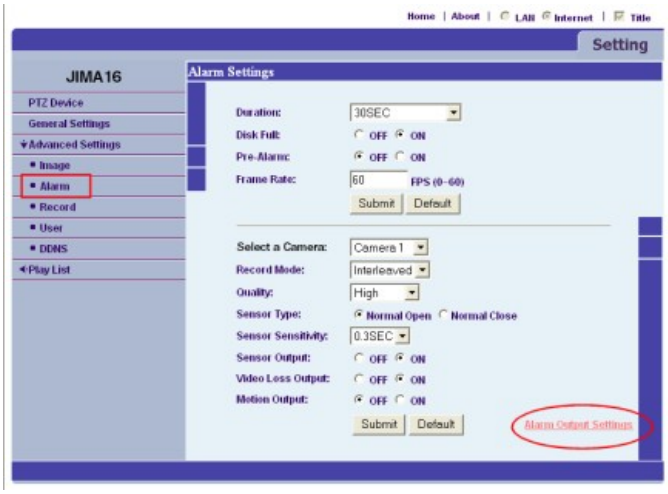
Advanced Settings: Alarm

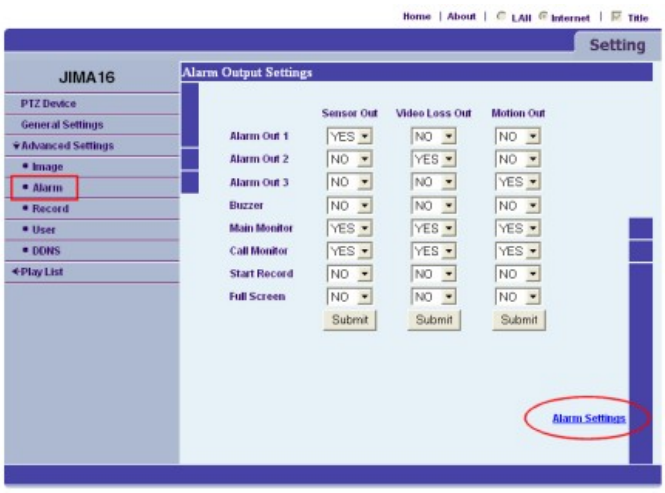
The upper part of the window enables you to set the Duration, Disk Full, PreAlarm, and Frame Rate of the alarm for the device.

The lower part of the window helps you set each channel's settings in the event of an alarm. Set Select Channel, Record Mode, Quality, Sensor Type, Sensor Sensitivity, Sensor Output, Video Loss Output, and Motion Output for each channel. Click **Submit** to set your changes.

Click **Alarm Output Setting** to enter the Alarm Output Setting page and set the detail items of alarm output.

Click **Submit** to save any settings change(s).





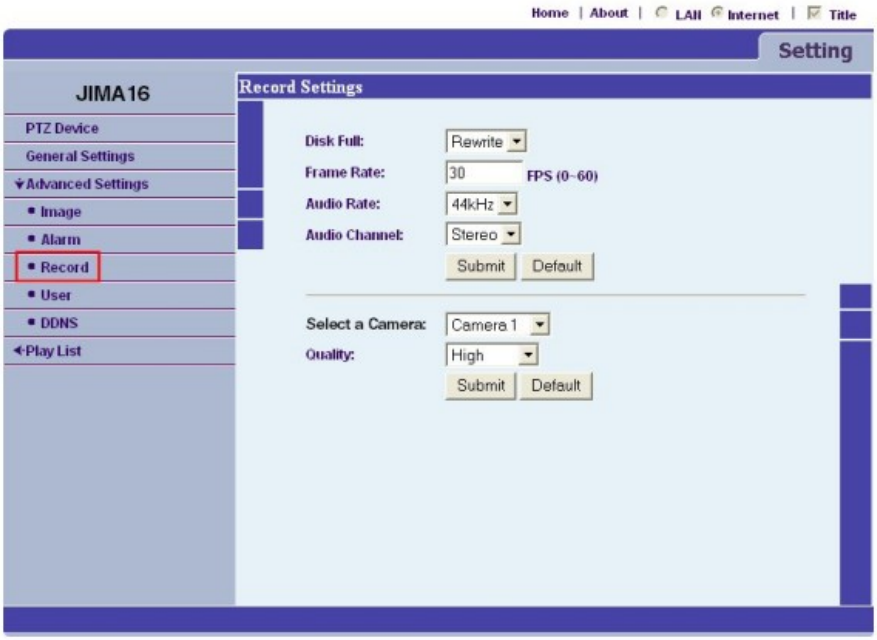
Advanced Settings: Record

Click to enter the **Record Settings** page.

In the upper part of the window you can set the device's Disk Full, Frame Rate, Audio Rate, and Audio Channel entries.

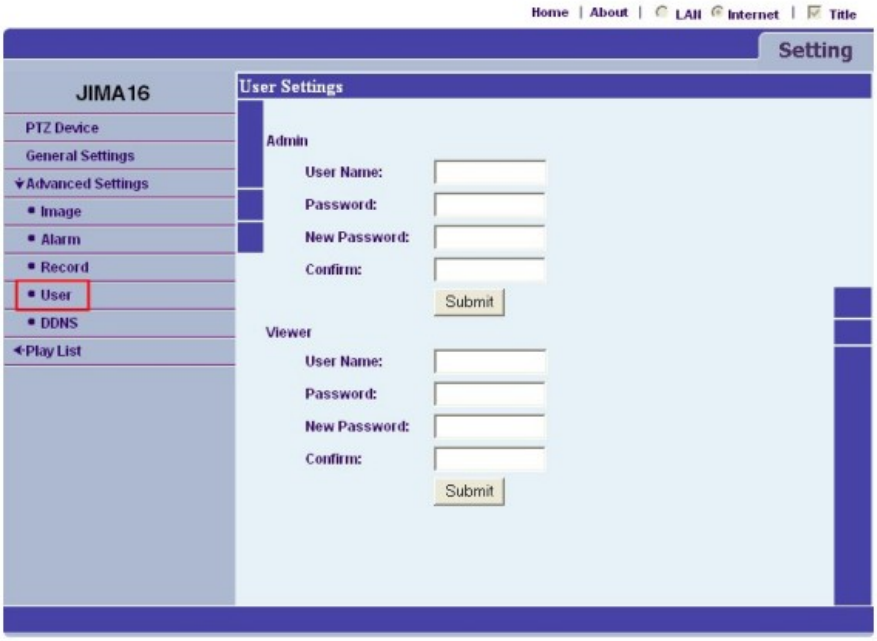
In the lower part of the window, set each channel's Select Channel and Quality.

Click **Submit** to save any settings change(s).



Advanced Settings: User

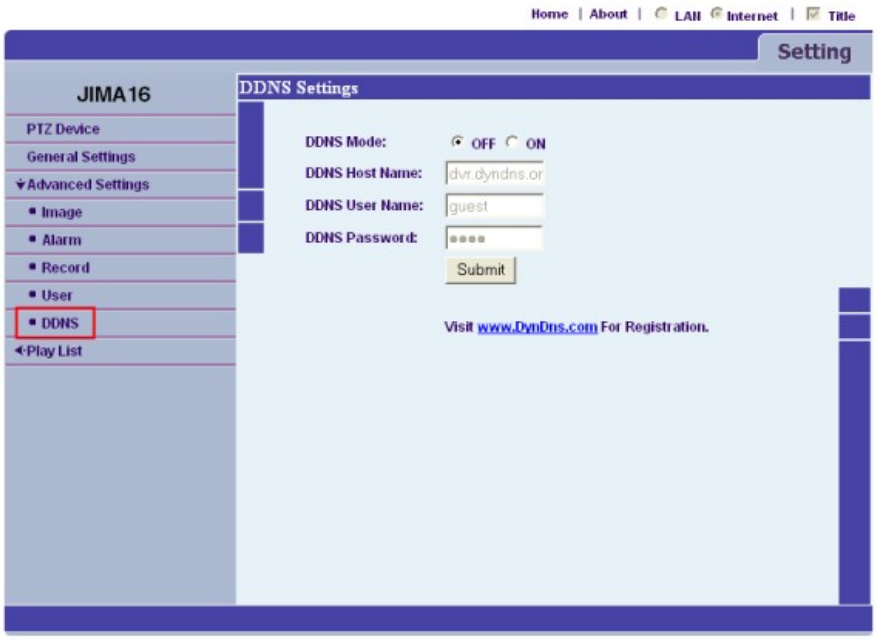
Click to enter the **User Settings** page and set the admin and viewer's User Name, Password, New Password, and Confirm any changes. Click **Submit** to save any settings change(s).



Advanced Settings: DDNS

Click to enter the **DDNS Settings** page and to configure the details of the Dynamic Domain Name System (DDNS) mode. Click **Submit** to save any settings change(s).

Refer to the appendix, “The DDNS Functions”, page 110, for more details.



Appendix A: Specifications

Feature	4CH, 9CH, and 16CH Versions of the EDVR
Resolution	NTSC: 720 x 240 pixels; PAL: 720 x 288 pixels
Operation Mode	Triplex (Simultaneous Live, Play, Record and Network)
Video Input	BNC x 4 (4CH); x 9 (9CH), or x 16 (16CH); termination: DIP SW
Video Output	Main (BNC), Spot (BNC), Looping (BNC) x 4 (4CH); x 9 (9CH), or x 16 (16CH)
Audio In/Out	Stereo, Line In/ Out (RCA x 4), 8/ 22/ 44 kHz sampling, *μ*-law
Compression	MJPEG
Storage Media	2 Fixed Hard Disk Drives (HDDs); one HDD is optional
Archive	CD-RW / SD Card
Watermark	Embedded Digital Signature
Recording Rate	NTSC: 60 IPS; PAL: 50 IPS
Image Size	Best (40KB) / High (28KB) / Standard (16KB) / Basic (8KB)
Recording Mode	Schedule / Manual/ Alarm / Circular / External Control
Alarm Recording	Pre-Alarm / Post-Alarm
Pre-alarm Recording	10 Sec
Playback Speeds	Use the Jog Dial/Shuttle Ring to access the following: Fast Forward/ Reverse: 1x, 2x, 4x, 8x, 16x, 30x, 100x Slow Forward/ Reverse: 1/2x, 1/4x, 1/8x, 1/16x, 1/30x, 1/100x and pause
Search	Event List / Time / Alarm List / Filter / Thumbnail / SD Card / CD
Zoom	x2
Motion Detection	Advanced MD (Zone, Position, Sensitivity)
On-Screen Display (OSD)	Cam Title / Time & Date / Mode / Error Message
Set-up Menu	Advanced/ Quick/ Network setting
Log List	2000-Record Operation Log
Alarm In/Out	4 (4CH); 9 (9CH), or 16 (16CH) Alarm Inputs / 3 Alarm Outputs
Built in Buzzer	Yes
Camera title	9 character limit
Communication Port	RS-232, RS-485, and Ethernet Ports
Network Interface	Ethernet (RJ-45 10/100 base-Tx)
Network Protocol	TCP/IP, DHCP, HTTP
Software Upgrade	Upgrade via Memory Card (SD Card)
Password Protection	Yes
Power input	Input: 100-230V, 50/60 Hz; Output: DC12V max 5A: (external AC Adapter)
Weight	Approx. 5.9 kg/ 13 lb (w/o any HDDs)
Dimensions	H mountable 430 x 55 x 405 mm EIA 19" 1 1/2U

Feature	4CH, 9CH, and 16CH Versions of the EDVR
Operating Temperature	5 - 40 °C (41 -104 °F)
Regulation	UL, CE, GS, FCC, C-tick, PSE

** The design and specifications are subject to change without notice.

Updating the System Software

The following procedure describes how to update the EDVR system software (firmware). When system software updates become available, your account manager will inform you or you will be notified to go to the American Dynamics Web site.

Be sure to read all of the instructions before you begin this process.

Caution

Do not interrupt the system software update process as this could damage the EDVR.

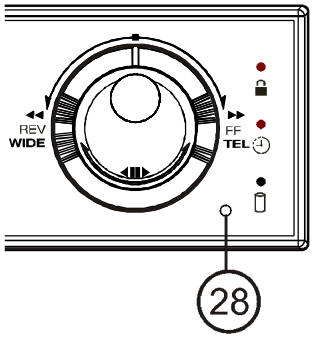
Before carrying out the following procedure, verify that the SD card is not damaged and that the system software update file is intact and in the proper folder.

Creating the System Software Update SD Card using a Personal Computer

1. Insert the SD card into the proper drive or adapter on a Windows computer. **Note**: Be sure to properly insert the SD card and format it (if it is not already formatted), and ensure there are no other files or folders on it.
2. Create a folder (directory) named DVRVIDEO on the SD card.
3. Copy the file UPDATE.BIN to the DVRVIDEO folder.
4. Use a Windows file manager tool to verify the folder and file are accessible on the SD card. Then remove the SD card.

Updating the EDVR

5. If the EDVR is on, turn it off.
6. Insert the SD card into the SD slot on the front panel. Refer to the label around the SD card slot to properly insert the SD card. (The SD card has a “notch” on one end; and the label side of the SD card should be on the same side as the SD card slot label on the front panel.)
7. Using a tool such as the point of a ballpoint pen, press and hold the power (restart) switch for at least 3 seconds. The power switch is labeled “28” in the following figure.



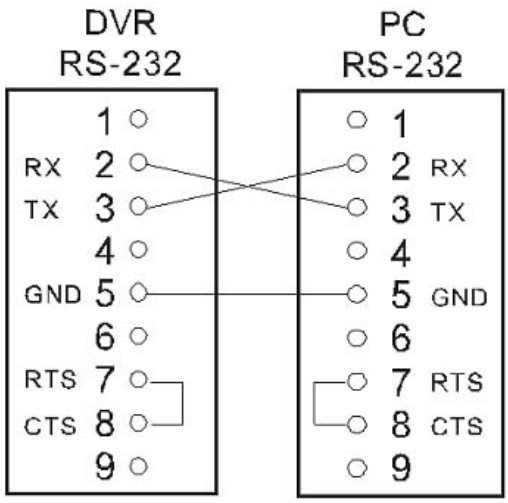
8. Keep pressing the power switch until the EDVR sounds a note and displays the message “Load Program…” The beep and the message indicate that the system software update process is taking place. This process takes several minutes to complete.
9. When the device displays the message “Please Power Off Restart”, restart the unit by turning off the EDVR, remove the SD card, and then turn on the EDVR. The system software update process is complete.

Note

If you have followed steps 1 through 9, and the unit is still unable to turn on, verify that the SD card you are using is not damaged and that the system software update file is intact and in the proper folder. Then repeat steps 1 through 9.

10. Verify the version information of the updated system software. From the Front Panel of the EDVR:
    - Press the **Menu** button and select **Default Settings** from the **Main Menu** (for further information, see page 68).
    - From the **Default Settings** menu, select item 6, **Version Information**.
    - Verify the version information listed near the top of the screen (for example, ver. 1.42), and on the line below the version number, the date (for example, 2006/04/26).

RS-232 Connections



The transmission protocol is 8 data bits, 1 start bit, and no parity.

Eight different speeds can be used (baud/sec): 1200, 2400, 4800, 9600, 19200, 38400, 57600, and 115200.

Note

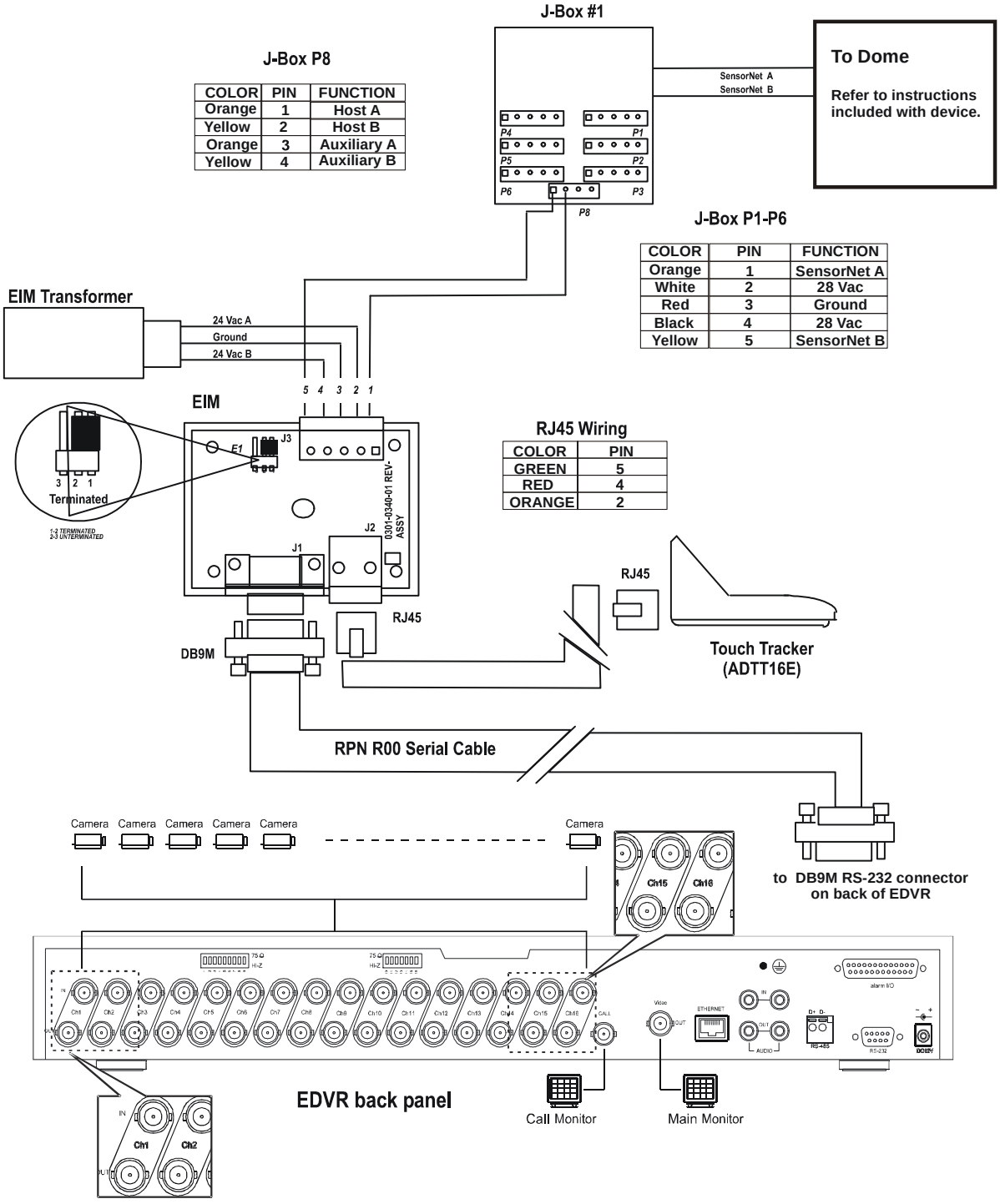
In order to connect certain external devices, you may be required to use a specific speed (baud rate). For example, connecting an American Dynamics ADTT16E Touch Tracker to the EDVR requires a setting of 9600 baud. Also refer to the following appendix.

Appendix D: Connecting a Touch Tracker ADTT16E

To connect an American Dynamics Touch Tracker ADTT16E advanced dome controller to your EDVR, refer to the installation and setup guides that are included with the ADTT16E. In addition, refer to the following diagram.

Note

For the EDVR Communications Settings, the RS-232 Baud rate value must be 9600.



Note

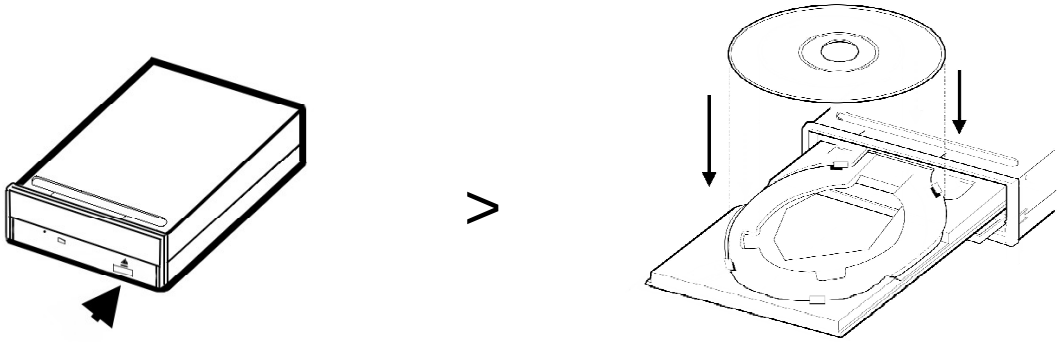
The RPN R00 serial cable is included with the ADTT16E Touch Tracker. To make your own cable, refer to the pin outs described elsewhere in the ADTT16E user documentation. Such serial cables can also be purchased at many electronics supply stores.

Appendix E: Using CDs

When using CD-ROM, CD-R, or CD-RW media, do not write on or stick anything to either side of the disk as doing so could cause an error in recording (that is, the data on the disk may be damaged).

Inserting a Disk in the Drive

1. Press the eject button.
2. Place the disk in the tray (caddy) as illustrated in the following.



Notes

- Inset the disk so that the printed (label) side is up.
- When using a 12 cm disk, place it in the center of the tray (caddy) where you see the indication (recess) for the larger position. When using an 8 cm disk, place it in the center of the caddy where you can see the indication (recess) for the 8 cm disk.
- Never place two disks in the caddy at the same time.

3. Do not touch the recording surface of the disk.
4. To insert a disk into or remove a disk from the caddy, press the eject button to open the caddy; press the eject button a second time to close the caddy.

Ejecting a Disk from the Drive

1. Press the eject button.
2. Carefully lift out the disk.
3. Press the eject button a second time to close the tray.

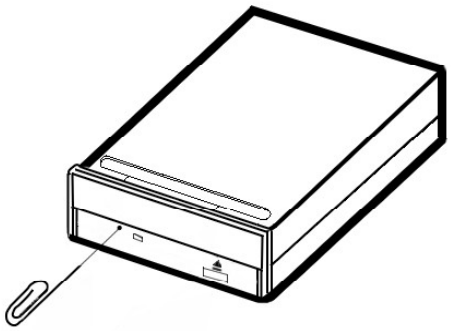
Caution

After the tray has been ejected and the disk has been retrieved from the caddy or placed in the caddy, be sure to close the tray to avoid the accumulation of dust or other foreign debris inside the caddy. Not taking such a precaution can cause the pick up head to accumulate dust, and it may become unreliable in reading or writing data.

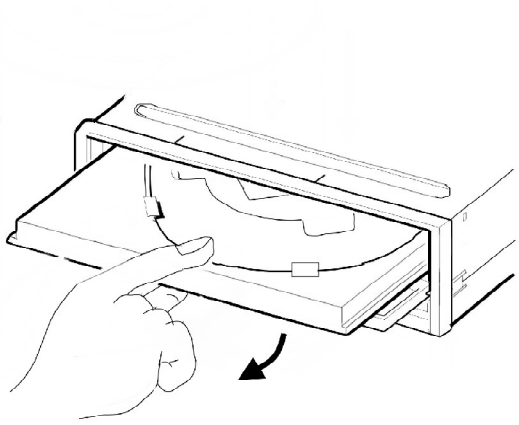
Emergency Eject Button

The CD-RW has an emergency eject button that allows for manual retrieval of the disk in case the machine needs repair, there is an interruption of electric power, or the device is not working properly in some other manner. In such situations, use the following method to eject the disk.

1. Turn off the EDVR and unplug it from its AC power source.
2. Insert a thin, stiff, wire-like tool (such as a straightened paper clip) in the small hole for the emergency disk eject button, and the tray will open. (**Note:** This hole is usually located just below the tray of the CD-RW drive.)



3. Press the front of the tray or lightly and gently pull the tray out with two fingers.



Caution

When you use either a CD-RW or a CD-ROM, be careful about the following.

- At the time of installation as suggested in your specifications, do not install in an unstable position or in one that causes vibrations.
- Do not install in high humidity, direct sunlight, or damp conditions.
- Do not use near magnetic fields or place near a television or a radio signal as the performance of the device may be affected.
- Do not open to try to repair it, as the laser may be harmful.

Appendix F: The DDNS Functions

The Dynamic Domain Name System (DDNS) is a function that is provided by an American company not affiliated with American Dynamics. Please refer to their Web site at www.dyndns.com for further information. This appendix provides you with the basic instructions to register a free DDNS service and complete the related settings of the EDVR.

Registering for a DDNS

Start your Web browser and enter the URL “www.dyndns.com”.

In the upper right corner of the main page, there is an item, ”Sign Up Now”, as shown in Figure 1.

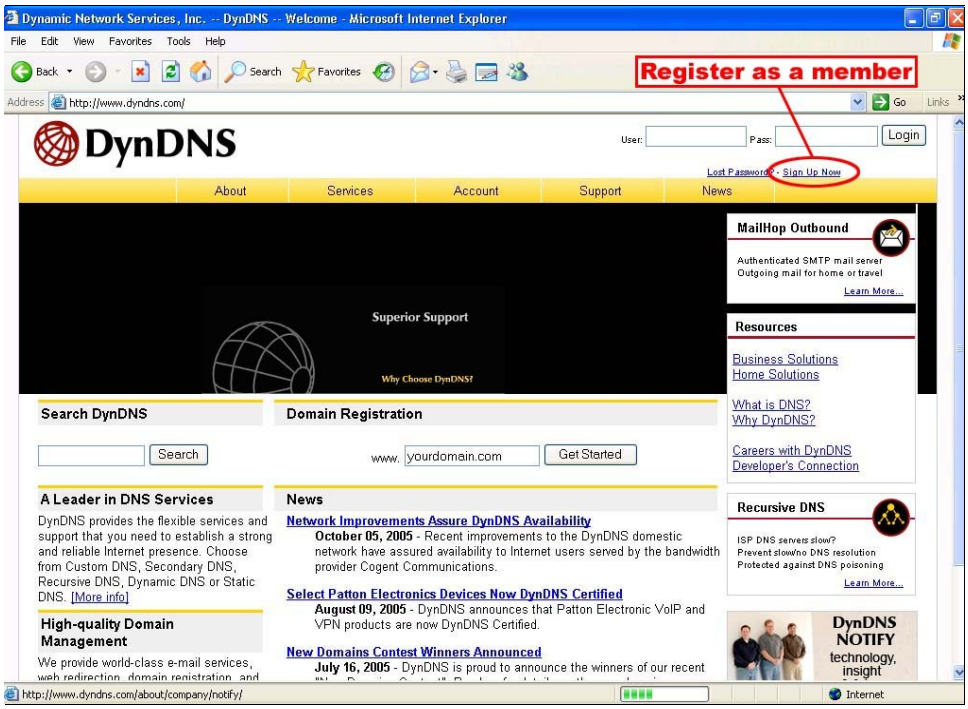

Dynamic Network Services, Inc. -- DynDNS -- Welcome - Microsoft Internet Explorer
Register as a member
http://www.dyndns.com/
DynDNS
User:
Pass:
Login
Lost Password? Sign Up Now
About
Services
Account
Support
News
MailHop Outbound
Authenticated SMTP mail server
Outgoing mail for home or travel
Learn More...
Superior Support
Why Choose DynDNS?
Resources
Business Solutions
Home Solutions
What is DNS?
Why DynDNS?
Careers with DynDNS
Developer's Connection
Search DynDNS
Search
Domain Registration
www. yourdomain.com
Get Started
A Leader in DNS Services
DynDNS provides the flexible services and support that you need to establish a strong and reliable Internet presence. Choose from Custom DNS, Secondary DNS, Recursive DNS, Dynamic DNS or Static DNS. [More info]
News
Network Improvements Assure DynDNS Availability
October 05, 2005 - Recent improvements to the DynDNS domestic network have assured availability to Internet users served by the bandwidth provider Cogent Communications.
Select Patton Electronics Devices Now DynDNS Certified
August 09, 2005 - DynDNS announces that Patton Electronic VoIP and VPN products are now DynDNS Certified.
New Domains Contest Winners Announced
July 16, 2005 - DynDNS is proud to announce the winners of our recent
Recursive DNS
ISP DNS servers slow?
Prevent slow/no DNS resolution
Protected against DNS poisoning
Learn More...
High-quality Domain Management
We provide world-class e-mail services,
DynDNS NOTIFY
technology, insight
http://www.dyndns.com/about/company/notify/
Internet

Figure 1 – DynDNS Home Page

Create an Account

After clicking “Sign up now,” you will enter the Create Account page. Please complete the form at the bottom of the page to create your account. You will receive an e-mail containing instructions to activate your account. If you do not follow the directions within 48 hours, you will need to recreate your account.

Set up Your DDNS Account

After creating an account successfully, please enter your user name and password in the upper right corner of the main page to login, as shown in Figure 2.

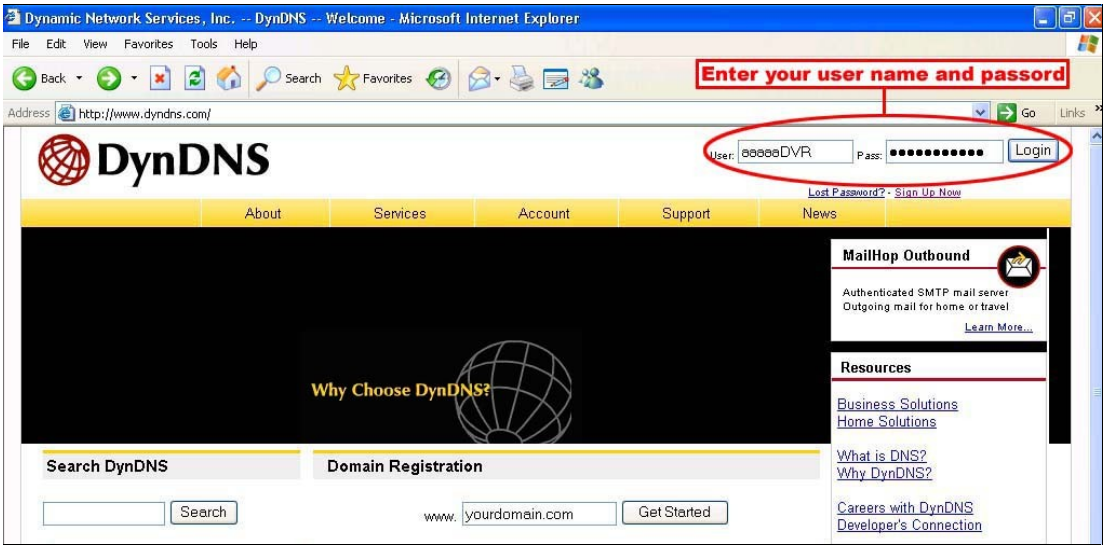


Figure 2 – DynDNS Login Page

After you login successfully, a text will appear saying “My Services”, as shown in Figure 3.

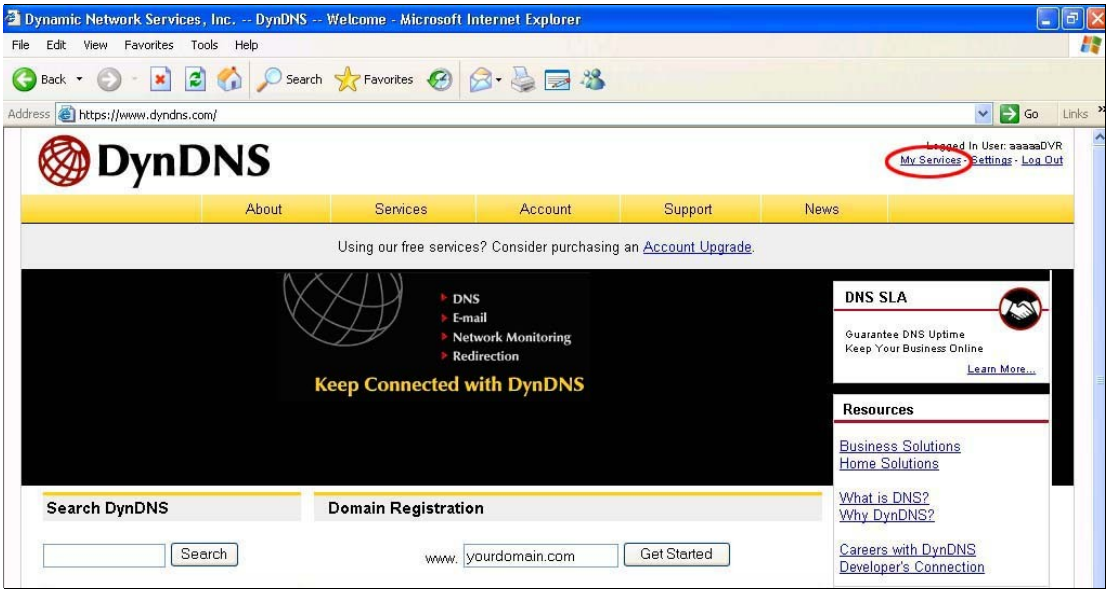


Figure 3 – DynDNS Successful Login

Click “My Services” to enter the service page. Please click the “Add Host Service” item that is below the ”My Hosts“ item, as shown in Figure 4.

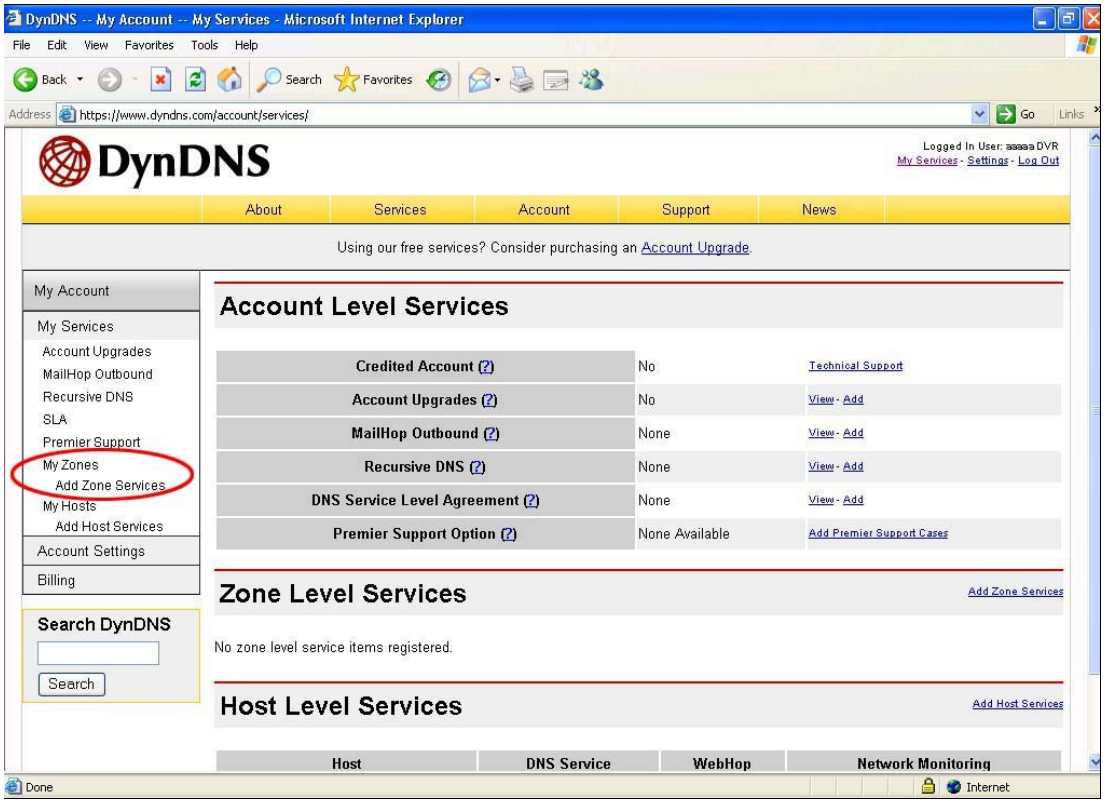


Figure 4 – Adding a Dynamic DNS Host

Click “Add Host Service” and its 5 service items will appear. The “Add Dynamic DNS Host” item helps to add a new DDNS as shown in Figure 5. Each member may have only one free account, and one free account can have only five DDNS entries.

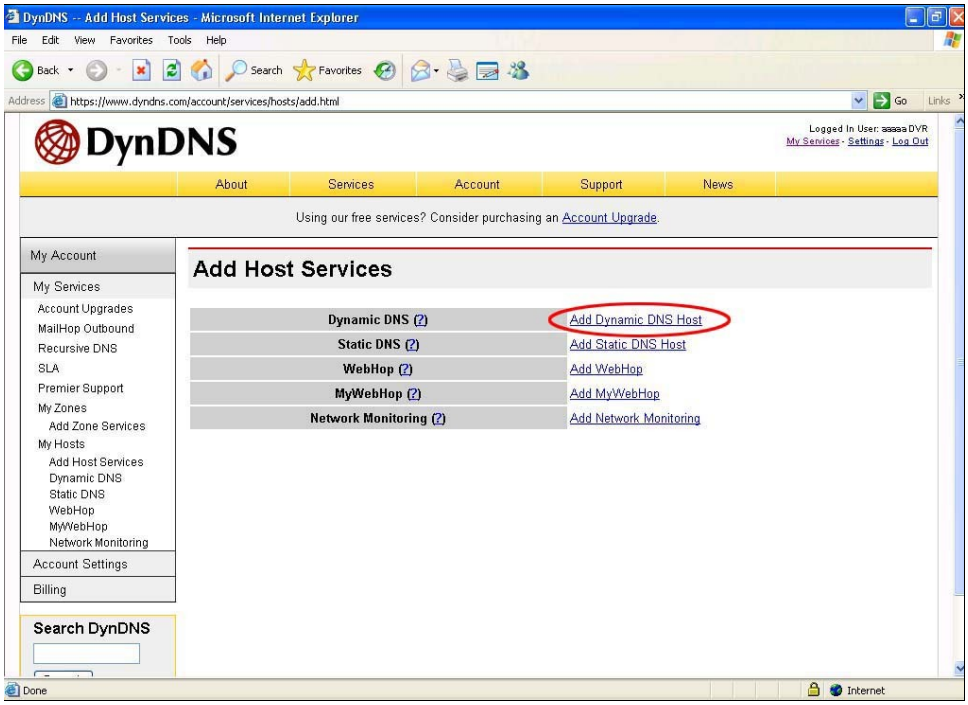


Figure 5 – Select Add Host Service

Click “Add Dynamic DNS Host” to enter the DDNS settings page as shown in Figure 6.

You only need to set the “Hostname” item on this page. If you prefer, you can also choose a Sub Hostname from to the right of the Hostname dropdown list. After completing your settings, press the “Add Host” button.

Note

You don’t have to set the “IP Address” in the same format as the EDVR’s IP Address. The EDVR will renew the IP Address automatically.

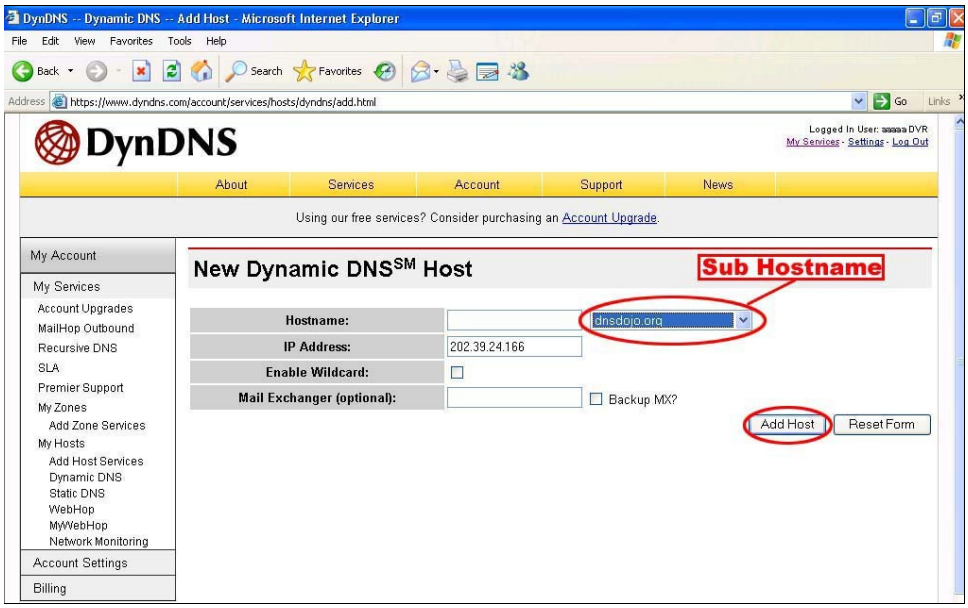


Figure 6 – The DDNS Settings Page

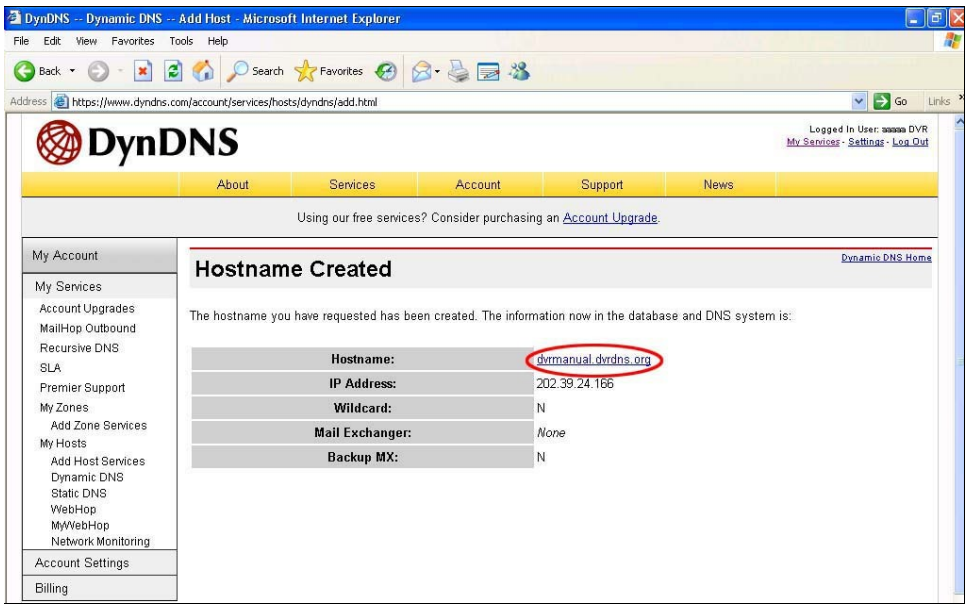


Figure 7 – Hostname Created Verification

Set the DDNS of the EDVR

The following sections summarize the DDNS configuration settings for the EDVR.

Entering the Net Settings page

From the Front Panel of the EDVR:

1. Press the MENU button to enter the Main Menu.
2. Select the Advanced Settings and press the ENTER button to enter the Advanced Settings page.

3. Select Communication and press the ENTER button to enter the Communication page.
4. Select Net Settings and press the ENTER button to enter the Net Settings page.

Set the Net Settings page

There are several network settings in the EDVR Net Settings page.

1. If provided with access to a DHCP server, the EDVR can obtain an IP address automatically by setting the DHCP item to On. When setting the DHCP item to Off, the IP Address, the Subnet Mask, the Gateway, and the DNS Address may be manually edited. These settings are required in order to make a network connection. Please consult with a qualified MIS professional to configure it.
2. Enter the DDNS Settings item of the Net Settings page.
3. Set the DDNS Mode to On.
4. To set the Hostname, enter the Host Name that you created on the www.dyndns.com Web site. The maximum number of letters in the Hostname that the EDVR can support is 40 (including the "period" symbol, ".").
5. Enter the user name that you created in the www.dyndns.com Web site to set the User Name.
6. Enter the user password that you created in the www.dyndns.com Web site to set the Password.
7. Choose Save and then exit the menu.

You can also set items 3-7 via the network.

Use a Web Browser

1. Start a Web browser, such as Microsoft Internet Explorer, and type in the URL (address) of the EDVR into the URL (address) block. Press the Enter button to enter the login page.
2. Use the IP Address/api.htm? mode to set the DDNS' arguments. For example, if the IP Address is 211.21.20.2, then the argument is 211.21.20.2/api.htm?
3. Refer to the following table for examples to set items 3-7:

Setting Name	Corresponding API	Example
DDNS MODE	ddns.enable	Set the DDNS to ON 211.21.20.2/api.htm?ddns.enable=1 Set the DDNS to OFF 211.21.20.2/api.htm?ddns.enable=0
HOST NAME	ddns.hostname	211.21.20.2/api.htm?ddnshostname= AD.dvrdns.org *It's OK to use either capital letters or lowercase letters in a hostname.
USER NAME	ddns.account	211.21.20.2/api.htm?ddns.account=myedvr * It's OK to use either capital letters or lowercase letters in a user name.
PASSWORD	ddns.password	211.21.20.2/api.htm?ddns.password=89921177

After each item is set, the page will display the corresponding message.

Other Possible Issues

1. When using a hub with the DNS function, you have to choose either the DDNS function of the EDVR or the DNS function of the hub. It will not work if you choose the DDNS function of the EDVR and the DNS function of the hub at the same time.

2. If you type in the DDNS Hostname of the EDVR into the URL block but fail to connect, this is not because the DDNS function of the EDVR is ineffective. Try again in a few minutes. A failure to connect often occurs when the network is busy or the database of the www.dyndns.com Web site has not been renewed.
3. If the connections still fail, enter the URL www.dyndns.com to check the IP Address. If the IP address has already been renewed in the current EDVR's IP Address as shown in Figure 8 (see next page), it means the database of the www.dyndns.com Web site has also been renewed. Please wait for a few minutes before you try to connect one more time.

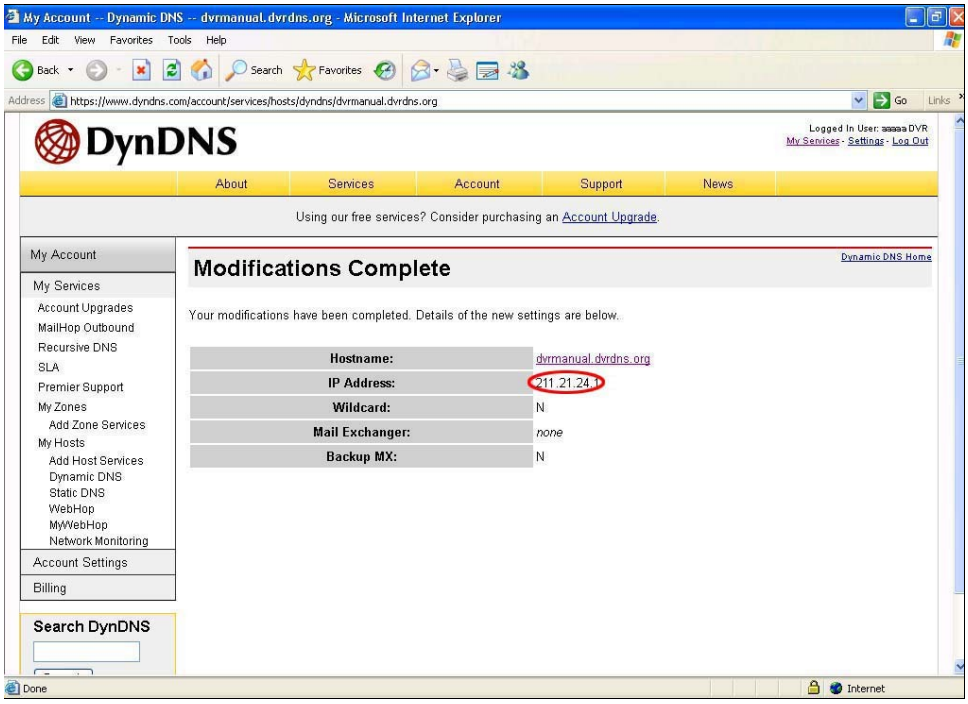


Figure 8 – Verifying IP Address of EDVR